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SOME PERSPECTIVES ON AGRICULTURAL PROTECTIONISM, DIVERSIFICATION AND ECONOMIC GROWTH

A report by the UNCTAD secretariat

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Abbreviations

ASEAN	Association of South-East Asian Nations
CAP	Common Agricultural Policy
CNAC	consumer nominal assistance coefficient
CSE	consumer subsidy equivalent
DAC	Development Assistance Committee (of the OECD)
EFTA	European Free Trade Association
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
GATT	General Agreement on Tariffs and Trade
GDP/GNP	gross domestic/national product
LDCs	least developed countries
NAC	nominal assistance coefficient
NIEs	newly industrializing economies
NRP	nominal rate of protection
NTBs	non-tariff barriers
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
PCSE	percentage consumer subsidy equivalent
PNAC	producer nominal assistance coefficient
PPSE	percentage producer subsidy equivalent
PSE	producer subsidy equivalent
SPS	Sanitary and Phytosanitary (Measures)
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme

SUMMARY AND CONCLUSIONS

1. The relative importance of farming in aggregate domestic output and employment tends to decline, albeit at varying rates, across countries through secular economic growth. This is mirrored more or less in the consequent structural change by, among other things, changes in agricultural comparative advantage. The process is particularly apparent in developing economies experiencing rapid income expansion, those in East and South-East Asia especially.

2. But the domestic policy stance on farming has also evolved noticeably with economic growth and structural diversification. At earlier stages of development, the agricultural sector is, on balance, the object of net taxation. The net outward transfer from this sector, inadvertent or otherwise, has been sizeable in many developing countries; this has served to constrain agricultural growth and diversification, among other adverse intersectoral effects.

3. On the other hand, however, price and trade policies have been actively pursued as a means to raise agricultural income, improve rural employment opportunities, and enhance intersectoral distributive equity in both developed and more industrializing market economies. The resulting huge and increasingly unsustainable transfer of resources in support of domestic production, and the disposal of subsidy-induced surpluses have led to significant distortions and tensions in world trade in farm products, including, not least, reduced opportunities and earnings for other agricultural exporters. The Uruguay Round Agreement on Agriculture will lower, but not eliminate, such transfers over the next decade.

4. Recent development history indicates that, in many countries, particularly in East and South-East Asia, the impetus to provide agricultural assistance is unlikely to disappear as this sector starts to lose its comparative advantage. But there are less costly ways to implement the policy transition from taxing to protecting which, at the same time, are also in accordance with the new policy-making environment engendered by the Uruguay Round Agreements. The focal thrusts are likely to be non-price in nature; moreover, they will be increasingly directed towards the broad-based provision of farm infrastructure, education and training, as well as research and extension delivery.

5. These basic facilities and services are the core elements that gave rise to the quantum jump in the productivity of agriculture and agro-processing in Asia and elsewhere. Their ready and diffused availability is one of the crucial location-specific advantages in attracting trade-related foreign direct investment in agriculture, among other activities. In this context, a significant potential exists for such investment to meet the external demand for better quality and a wider range of foods and other farm products with income expansion and spreading affluence.

6. There are stimuli on the supply side as well. Through rapid economic growth and structural change, agricultural comparative advantage is being eroded in an increasing number of developing countries. In the process, many of them have gained important ownership-specific and other proprietary advantages in a wide range of productive activities; these have been profitably internalized

through outward direct investment, including in agriculture projects, in other developing countries. Indeed, several East and South-East Asian subregions have now emerged as important sources of investable capital in their own right.

7. This aspect of South-South complementarities deserves greater attention and emphasis in the transition to different economic spaces. In a way, it is the agricultural component of the "multiple catching up process" of development that has been displayed with considerable eloquence by the dynamic economies of East and South-East Asia over the last two decades.

Chapter I

INTRODUCTORY OVERVIEW

8. The importance of agriculture to sustainable social and economic development has long been recognized. In most developing countries, this sector provides subsistence and other basic necessities to an expanding population and employment to a growing labour force consistent with its own domestic comparative advantage. Farming can also be, and has, in fact, been heavily relied on to enlarge internal demand. Moreover, inputs of various types have been extracted from this sector to ensure stable and affordable prices to consumers (urban dwellers and the rural poor in particular), as well as to facilitate the growth and transformation of major productive sectors and subsectors, including those within agriculture itself.

A. Salient background characteristics

9. With few exceptions, the cultivation of cereals and commercial crops accounts in general for the large bulk of land and other utilized inputs, for employment, and for output within the primary sector; direct primary activities, in turn, dominate domestic production among most third world countries. The share of agriculture in gross domestic product (GDP), although variable and generally falling, was in the range of 20 to 40 per cent of GDP among various developing regions over the last two decades; it was considerably higher in least developed and other low-income agricultural economies (UNCTAD, 1994c, pp.446-449; and UNDP, 1994, pp.180-181). For comparison, such a relative share averaged 3 per cent in North America, and 3 to 5 per cent among developed market economies in Europe and in Japan as well.

10. In terms of the work-age population in the early 1990s, for example, the economically active labour force in agriculture extended from around one half to as much as two thirds in many agriculture-based, developing economies. As a whole, some 1.1 billion people depend directly on farming for their livelihood, while the agricultural sector itself contains over 2.3 billion persons among developing countries (table 1). These figures contrast sharply to a workforce and farm-sector population of less than 15 and 30 million, respectively, among countries of the Organisation for Economic Cooperation and Development (OECD).

11. Agricultural production and exchange thus provide an important means to alleviate rural poverty as well as to help to improve distributive equity among domestic regions; this applies particularly to the situation in least developed and other low-income countries where alternative cash-earning activities are typically scarce. Although estimates are variable, the order of magnitude is clear: there were about 1.1 billion of poor people in developing countries during 1985; of this number, some 0.8 billion were in Asia. Notably, the rural poor constituted as much as two thirds of the overall incidence of poverty in many economies across various global regions (Asian Development Bank, 1992, pp.245-246; and UNDP, 1994, pp.164-165 and 210).

Table 1

Agricultural sector population and workforce
in selected developing countries and regions, 1980 and 1993

Region, country	Agricultural sector population				Agricultural sector workforce			
	Number (millions)		Percentage of total population		Number (millions)		Percentage of total workforce	
	1980	1993	1980	1993	1980	1993	1980	1993
Asia (total) a/	1625.8	1827.1	66	58	753.7	877.2	69	60
of which								
- Bangladesh	66.0	81.3	75	66	18.9	25.0	75	66
- China b/	739.5	785.9	74	63	406.1	463.1	74	65
- India	456.0	553.3	66	62	185.0	223.9	70	65
- Indonesia	80.2	81.4	53	42	32.2	35.7	57	46
- Pakistan	49.3	65.9	58	51	13.9	18.4	55	48
Africa (total)	308.4	407.2	69	62	128.7	158.8	71	64
of which								
- Egypt	18.7	21.9	46	39	5.1	6.1	46	39
- Ethiopia	30.9	39.8	80	73	14.1	16.2	80	73
- Nigeria	53.4	76.0	68	64	21.8	28.2	68	64
Latin America (total)	114.6	115.3	32	25	38.9	40.9	32	24
of which								
- Brazil	37.8	35.4	31	23	13.8	13.2	31	23
- Colombia	9.1	8.7	34	26	2.7	2.9	34	25
- Mexico	24.5	25.3	37	28	7.9	9.0	37	28
Regional total	2048.8	2349.6	63	55	921.3	1076.9	66	58
World total	2196.0	2445.5	49	44	993.1	1123.1	51	45

Source: FAO (1994a, pp.19-35).

a/ Including Middle Eastern countries.
b/ Including Taiwan Province of China.

12. There are also other stark disparities among the poor. Malnourished persons numbered as high as 0.86 billion (or 36 per cent of the total population) among 89 developing countries (excluding China) during the mid 1980s;[1] they formed a larger proportion of the people in sub-Saharan Africa and South Asia than elsewhere within the third world (FAO, 1987a, pp.66-67; and World Bank, 1986a, pp.17-19). Furthermore, disadvantaged social groups (such as women, children, the aged and the infirm etc.) tend to bear a heavier burden arising from poverty and malnutrition under the normal initial circumstances, as well as through various (transitional) stages of economic stabilization and structural adjustment.[2]

13. International trade in agriculture and, to a lesser extent, other primary commodities, has been an important economic foundation for the majority of third world countries. Apart from the sizeable amounts of foreign exchange earned or saved, a competitive agricultural sector has often served as a dynamic springboard for further commodity and structural diversification in many developing countries, and *vice versa*. It has also endowed governments with greater scope and flexibility to deal with and overcome quickly transient economic shocks, as well as to manage more effectively the various transition and transformation phases.

14. Developing countries' earnings on agricultural exports averaged some US$ 105.6 billion a year in the early 1990s; this was equivalent to 25 per cent of global export value of the same commodities. In nominal terms, such earnings represented a fivefold increase over the corresponding export receipts of US$ 20.9 billion (or one-third of world exports) in 1970. But the fortunes of agricultural trade, and hence their contribution to internal economic growth and transformation among primary commodity exporters have fluctuated widely over the past two decades.[3]

15. Generally, the share of agricultural exports in merchandise export value has fallen considerably since 1970; the trend is noticeably steep in the case of the developing Asian region (fig. 1b). This region, as well as North America, was able to maintain its share of farm-export earnings in global agricultural export value over 1970-1992. But the economies of Western Europe was the only group to have increased significantly its relative share during the same period (fig. 1a); consequently, its export earnings on food items and agricultural raw materials, reached US$ 195 billion in 1992, compared to US$ 93 billion in 1981 and US$ 18 billion in 1970.

16. As a whole, global trade in farm products was expanding much faster than the rate of agriculture export growth from the developing African region and, to a lesser extent, Latin American regions. Their relative share fell to only 3 and 9 per cent, respectively in 1992 (fig. 1a). Translated into financial terms, these were equivalent to US$ 12 billion in the case of Africa and US$ 40 billion for the developing western hemisphere; in comparison, developing Asian economies earned some US$ 67 billion during the same year. At the same time, the relative share of the world export value of African and Latin American merchandise exports has also declined considerably over the last two decades (fig. 1c). It amounted to less than 2 and 4 per cent, respectively, in the early 1990s (see box 1).

Figure 1(a)

Relative shares of exported food items and agricultural raw materials from various regions and subregions in global export value of the same commodities, 1970, 1981 and 1992

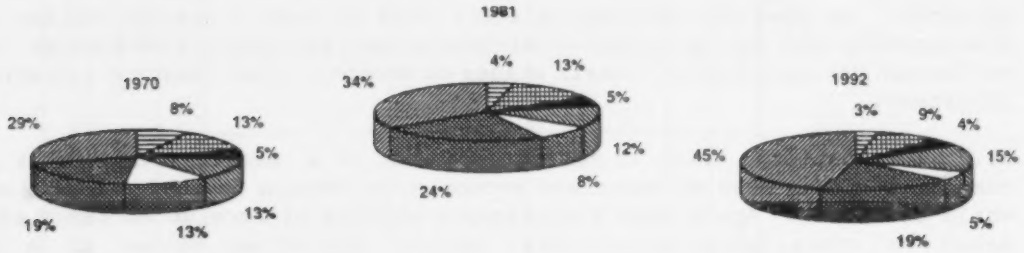


Figure 1(b)

Relative shares of export earnings on food items and agricultural materials in total merchandise export value of various regions and subregions, 1970, 1981 and 1992

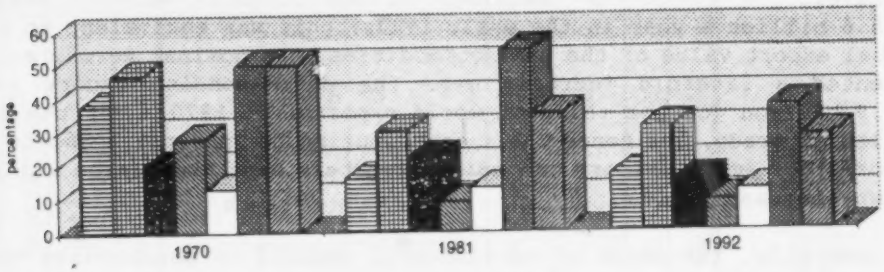
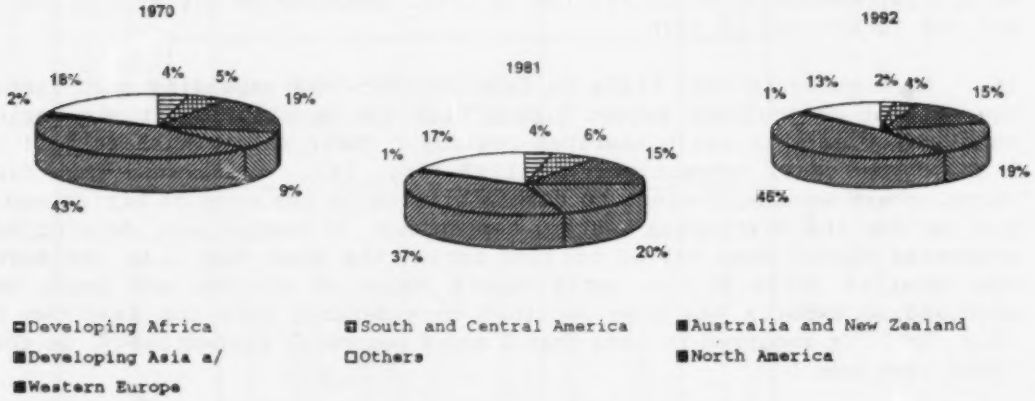


Figure 1(c)

Relative shares of merchandise exports from various regions and subregions in global export value, 1970, 1981 and 1992



Source: UNCTAD (1994a).

a/ Including West Asia.

Box 1

Marginalizing growth

Primary commodity trade has played a major role in the development of North-South economic relationships. Historically, the major suppliers of primary commodities were developing regions and countries; indeed, for a wide range of agricultural and mineral products, climate and the natural environment had ordained the centuries-old patterns of trade specialization in the North-South division of labour (and capital).

Such dichotomy has become increasingly tenuous during the last few decades - except for certain "tropical" commodities such as coffee, cocoa, tea, rubber, tropical timber and tin. Technical progress, new discoveries, less materials-intensive patterns of economic growth in industrialized market economies, and asymmetrical macroeconomic policy responses over the commodity price cycles are among the factors that have delinked considerably the previously strong raw-materials input/final output connection.

At the same time, the rising trend in agricultural assistance and protection in most developed market economies has resulted in an expanding surplus of commodities directly substitutable for, or competitive with, similar exports from the third world. Its subsidized disposal has reduced trade opportunities (and hence export shares), and often depressed world prices of commodities from the South as well.

Such developments have combined with a variety of structural constraints and infrastructure bottlenecks in many third world countries to reduce their participation in primary commodity trade, as well as to weaken the earlier strong stimulus from such trade in domestic economic growth. Despite concerted efforts at economic policy liberalization and reform, agriculture and merchandise exports from the developing African region and, to a lesser extent, Latin America, have failed to keep pace with the respective global trade flows over the last two decades (see table below.)

Shares of global and regional merchandise and agricultural exports, 1970, 1981, 1992

	Merchandise			Agriculture		
	1970	1981	1992	1970	1981	1992
Global exports (US$ billion)	315	1974	3662	62	276	433
by region (percentage share):	100	100	100	100	100	100
Developed market economies	71	62	72	58	64	70
Developing economies	18	29	23	34	29	27
- Africa	4	4	2	8	4	3
- Asia a/	9	19	17	13	12	15
- Latin America	5	6	4	13	13	9
Other economies	11	9	5	8	7	3

Source: UNCTAD (1994a).
a/ Including Western Asia.

Their falling and currently marginal shares in world trade contrast sharply to the developed market economies' agricultural exports, which grew from 58 to 70 per cent of world trade in those commodities during 1970-1992. There is another sobering, and not entirely unexpected, indicator. The relative economic significance of the third world region (except Asia) has declined over the past decades. The combined GDP of Africa and Latin America, for example, accounted for 2.3 and 5.9 per cent, respectively, of the global level in 1976; the corresponding ratios being 1.6 and 5.1 per cent in 1991 (UNCTAD, 1994c).

17. The evolving patterns of resource allocation and trade in agriculture reviewed briefly above, reflect, to a considerable degree, the outcome of extensive and complex government intervention. Such policy steerage ranks perhaps the heaviest among domestic economic sectors in many developing and developed countries.

18. Agricultural-sector responses and, by implication, many of the crucial functions and intersectoral linkages that farming is designed to serve or initiate, are strongly influenced by policies that are not even directly related to agriculture. Less well recognized is that government policy stances towards this sector have evolved significantly through various stages of economic growth and structural transformation. Agriculture is, by and large, taxed within the totality of the policy environment in most developing economies. The bias against farming, however, disappears in many countries at the other end of the development spectrum. Agriculture tends to be strongly supported and protected from external competition. Apart from significant international spillover effects, this has involved massive and increasingly unsustainable amounts of resource transfer in support of production and trade by a basically declining economic sector.

B. Scope and structure of the study

19. It follows thus that agriculture and, more generally, resource trade problems cannot be (sufficiently) considered in isolation from domestic commodity-sector development difficulties. These problems, in turn, cannot be divorced from the process of domestic growth and structural transformation. Development and policy transition at various stages of growth and restructuring inevitably entails great private and social costs - not only within each nation but via trade and investment flows, across borders as well. Daunting trade-offs in government policy objectives at both the intra- and intercountry level have to be managed and mutually accommodated to ensure that outcomes are consistent with what are widely regarded as just and tolerable.

20. But the relative weights given to each policy goal, and the fragile balancing and trade-offs between them, can be expected to vary substantially among countries and within the same economy, through time; and so do the timing, pace and sequencing of applied policy instruments. Such diversity reflects the inevitable differences in strategic development orientation, in total resource endowments and availability, in economic growth and dynamic comparative advantage, and in socioeconomic priorities among nations.

21. Nevertheless, the wide array of domestic policy aims being simultaneously pursued are apparently not always mutually self-supportive or self-reinforcing. This often gives rise to inconsistent or even unsustainable outcomes with complex and often unexpected implications and effects on intra- and intersectoral resource allocation and distributive equity, as well as economic performance over time. Another major problem is the increasing spillover across borders of the impact of internal policy, not least through the process of globalization.

22. The nature and interactions of a wide range of policy instruments concerning agriculture have been discussed at considerable length in the pertinent literature.[4] The main focus below will thus be confined to a number of selected, intersectoral development issues and implications distillable from the evolving policy stance on agriculture production, trade and protectionism in both developed and developing market economies, as well as those in between these two polar groupings, over the past few decades.[5]

23. The remainder of this paper consists of four chapters. The first three sketch the salient features and effects of the changing policy stance on agricultural taxation as it has been designed and implemented in response to a variety of impulses and imperatives of economic growth and structural change that has been experienced by various groups of both developing and developed economies. A comprehensive coverage of substantive matters, and related policy issues and implications, is not attempted here. Instead, attention is directed eclectically to the multidimensional and multifaceted policy-induced interactions among major economic sectors and variables.

24. In the concluding chapter V, an attempt is made to encapsulate several outstanding policy issues and implications into a number of broader perspectives relating to agricultural growth, diversification, trade and protectionism. Due emphasis is given to the probable impact of the Uruguay Round Agreements on the policy-making environment concerning farming. The discussion is also couched in the context of the "multiple catching-up" process of development; where appropriate, reference is made to the role of trade-related foreign direct investment (FDI) in the process.

Chapter II

AGRICULTURAL TAXATION

25. The typical dominance of agriculture, the need to ensure affordable food prices in urban areas, and limited taxable opportunities in the earlier stages of economic development have resulted in a substantial, and prolonged, transfer of real resources from the farming sector in the majority of developing countries. The sector has also typically been neglected in the rush to initiate and promote structural transformation from traditional (and passive) agriculture to modern (and dynamic) industry. A number of important ancillary parameters and linkages, moreover, have tended to be overlooked or given inadequate attention in the transition process. The consequent problems from demographic changes, rural-urban migration, human resource and infrastructure bottlenecks, and from the degrading natural-resource base have further retarded the transformation process in many developing countries.

A. Multiple policy objectives

26. Experience over the years has shown that the promotion of greater supplies and productivity in agriculture normally goes hand-in-hand in many developing countries with the maintenance of stable and affordable rice prices for the majority of urban consumers/workers over time. But these policy targets are not always compatible or mutually self-supporting in their resource requirements or in the sequencing of the concerned policy measures. Indeed, in many countries, government subsidies on the consumption side, as necessitated by the latter goal, have been relatively substantial; these have frequently proved to be unsustainable because of budgetary and/or balance-of-payment pressures (Krueger, Schiff and Valdés, 1991, pp.1-2). The consequent fiscal drain has often had to be traded off by frequent and/or widespread underinvestment in long-gestation rural facilities and services - infrastructure inputs crucial for agriculture growth and diversification. Besides, in many countries, the benefits from such subsidies have not always been equally distributed among classes of consumers or targeted regions themselves.

27. Furthermore, such a policy stance at the microeconomic/sectoral level has coexisted in many developing economies - until recently - with import-substitution industrialization as a development strategy. In those countries pursuing it, this inward-looking thrust tended to generate indirectly, at the macroeconomic policy dimension, an incentive structure and trade regime that inadvertently served to constrain or penalize primary production, diversification and exports within or without the farm sector.

28. Thus, there are examples of direct taxes or other fiscal levies on commodity exports and the procurement of rural produce at prices below those prevailing in world markets. In some areas, implicit transfers operated through tariffs and other import-control measures to limit the available quantities and/or to raise the prices of products consumed or required as inputs on-farm. Other compounding factors have included the maintenance of an overvalued exchange

rate and high urban wage levels in real terms within the protected/segregated industries, as well as the crowding out of small farmers from access to subsidized credit, and other essential facilities and services.

29. Virtually without exception, the share of institutional credit to rural areas has long been far below the agricultural contribution to total output and employment among third world countries, despite farmers' greater needs for finance due to the seasonal character of agriculture. At the same time, the limited funds available have tended to be channelled in favour of large rural borrowers and producers.[6]

30. The overall policy stance has impacted adversely on agricultural terms of trade and hence on incentives in many countries for a large part of the last three decades. An in-depth study of price policies in 18 developing economies across various regions indicates that direct intervention on imported goods has been positive while exportables have tended to be penalized, in some cases quite significantly (table 2). Second, the magnitude of indirect taxation borne by agriculture (mostly through industrial protection policy including exchange-rate overvaluation) has been significant; it was several times heavier than that of direct taxation in many countries. Lastly, total taxation has, on average, been in the range of 25 to 52 per cent in all regions and subregions under consideration. But the relative burdens were much heavier in African and, to a much lesser extent, South Asian countries, than those prevailing in East and South-East Asia (fig. 2).

Table 2

Estimates of nominal rates of direct and indirect protection among 18 developing economies, 1960-1984 (in percentages)

Region/subregion	Average nominal protection			Direct protection of importables	Direct protection of exportables
	Indirect	Direct	Total		
Asia a/	- 23 b/	- 2	- 25	22	- 15
Latin America c/	- 21	- 6	- 28	13	- 6
Mediterranean d/	- 19	- 6	- 25	3	- 12
Sub-Saharan Africa e/	- 29	- 23	- 52	18	- 20

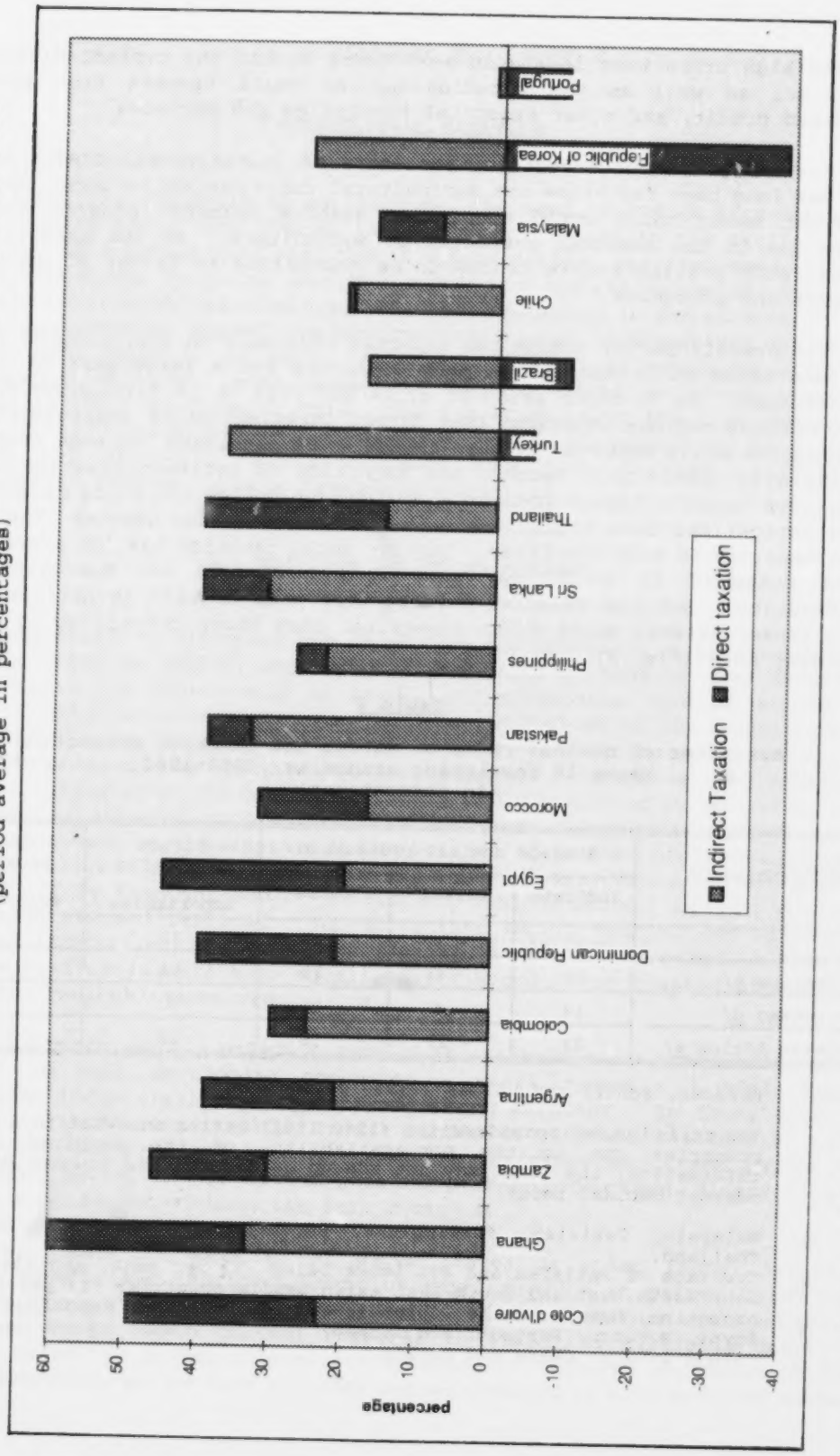
Source: Krueger, Schiff and Valdés (1991, pp.10-11).

Note: The period under consideration (1960-1984) varies somewhat in a number of countries due to the non-availability of the required data and information; the total may not add up as figures are rounded off to the nearest decimal point.

a/ Malaysia, Pakistan, Philippines, Republic of Korea, Sri Lanka and Thailand.
b/ The rate of Pakistan and Sri Lanka being -32 per cent, and that for the four North-East and South-East Asian sample countries -18 per cent.
c/ Argentina, Brazil, Chile, Colombia and the Dominican Republic.
d/ Egypt, Morocco, Portugal and Turkey.
e/ Côte d'Ivoire, Ghana and Zambia.

Figure 2

Estimates of direct and indirect taxation of agriculture in 18 developing countries, 1960, 1984
(period average in percentages)



Source: Schiff and Valdés (1992, p.7).

31. In absolute terms, the average transfer out of agriculture as a result of direct price intervention (net of input subsidies that boosted farm income by about two percentage points) was estimated at 4 per cent of agricultural GDP for the sample countries during 1960-1984. Incorporating the income effects of indirect taxation on farming raises the net transfers to between one-third and almost one-half the agricultural GDP. Another pertinent issue is that, in general, input subsidies compensate little for the comparatively massive income outflows arising from the totality of government policy intervention in developing economies' agriculture (Schiff and Valdés, 1992, pp.5-9).

B. Some counter-productive outcomes

32. Actual performance, not infrequently rendered more difficult by adverse weather conditions and other exogenous or human-made shocks, has thus fallen noticeably out of line with potential. Lower agricultural output has reduced effective demand not only for off-farm activities and services, but also for consumer and other manufactures from the promoted local industrial sectors.

33. Non-farm labour constitutes some 20 to 25 per cent of the agricultural work force in many developing countries. The share of off-farm incomes in rural household earnings also tends to expand rapidly with economic growth; this illustrates clearly the close interactions and interdependence between rising agricultural output and productivity, and the induced expansion within the non-farm sector. There is, in addition, a valuable redistributive spillover; poorer rural households and landless farmers tend to feature prominently in off-farm rural-based activities and services.

34. Weak agricultural performance has also contributed in several countries to export-earnings shortfalls, and to losses in market share where (heavily taxed) tradeable commodities started to lose their comparative advantage to other less heavily taxed goods or to more cost-effective developing country producers (United Nations, 1990, pp.15-17; and ESCAP, 1992a, pp.192-193). Aggravated at the same time by relatively fast rates of population growth, many economies have suffered additionally from enlarged and persistently heavy deficits in basic food requirements. The consequent pressures on external payments, shortage-induced inflation and other macroeconomic misalignments have often served to limit or frustrate agricultural diversification and domestic industrialization efforts in many developing countries.

35. Several other unfavourable intersectoral linkages can be identified as well. Poor rural health has in many of the poorer countries induced excessive outmigration: the urban population in developing countries expanded by an average rate of 4.3 per cent a year, compared to 2.2 per cent for the total population growth between 1960 and 1992. The expansion of urban residents in least developed and sub-Saharan countries was even faster, at some 6 per cent annually (UNDP, 1994, pp.172-175). Such massive inflows of people, in turn, have generated acute urban overcrowding and pollution, and serious infrastructure bottlenecks and decay. Unemployment in these countries has expanded as the industrial sectors have failed to absorb the larger pool of urban labour supply; partly in consequence, social and other imbalances and tensions have emerged and become entrenched.

36. According to recent estimates, moreover, the numbers of the global poor have increased almost as fast as the rate of population growth so that they totalled between 1.1 and 1.3 billion in the late 1980s and early 1990s in developing countries. At the same time, malnutrition has been afflicting a larger absolute number of people among 89 developing countries (excluding China) - 0.78 billion in 1969/1971, 0.86 billion during 1985/1986, and it will afflict an estimated 0.88 billion in the year 2000. In terms of the total population under consideration, however, the proportion of undernourished persons has been declining among the major developing regions, except in sub-Saharan Africa (see endnote 2 for sources of reference).

37. Against such an unfavourable backdrop, the synergies between poverty alleviation and ecological protection are now well recognized: abject poverty and the intensified search for basic necessities such as food, energy, shelter and fodder have contributed to an unsustainable exploitation of the local commons and more generally the resource base, as well as to considerable environmental degradation in many economies across the globe (ESCAP, 1992b, and World Bank, 1992, pp.30-32).

38. Persistent underperformance in agriculture has in many countries weighed heavily on overall domestic growth and structural diversification. The consequence lack of economic strength and resilience have reduced both the scope and opportunities to withstand, manage and override external economic turbulence and shocks. Several of those were severe and came almost serially in the 1980s.

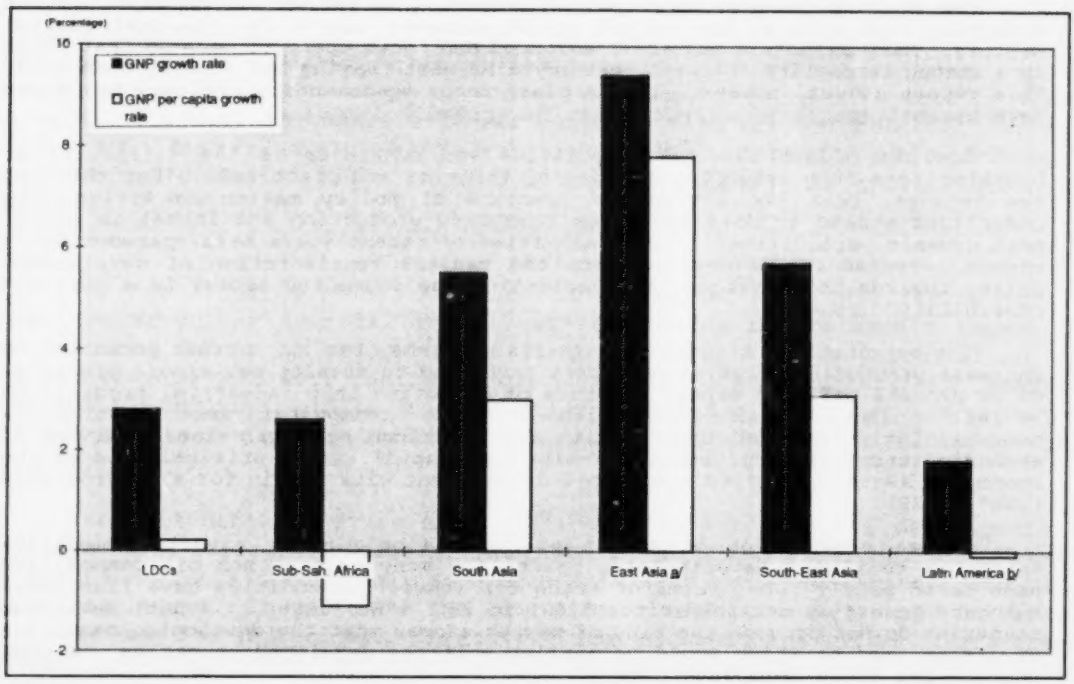
39. There was, in particular, the second oil-price hike of 1979/1980, and the collapse of non-oil real commodity prices for most of the last decade. The first half of the 1980s also witnessed sharp increases in real interest rates, compounded by a reduced availability of commercial finance and some decline in external aid flows in real terms; oil prices went down sharply and have remained on a low trend from the second half of the last decade, except for a brief upswing due to the gulf war.

40. Indeed, the 1980s are widely regarded on hindsight as a decade lost for the development of many third world countries (fig. 3). Per capita income during 1980-1991, for example, fell by over 1 per cent annually in the sub-Saharan region; it remained virtually stagnant in Latin America and the Caribbean, and among the least developed countries (LDCs) as a group as well. In comparison, the income level per head of population expanded by almost 8 per cent a year in East Asia (including China), just over 3 per cent in South East Asia and, thanks to renewed agricultural growth, 2.5 per cent in South Asia during the same period (ESCAP, 1992a, pp.188-189; and UNDP, 1994, p.212).

41. This unfavourable economic performance and, on the other hand, the need to respond to external shocks, have generated important impulses and imperatives for adjustment. In turn, these have contributed to an intensive reappraisal of the domestic policy framework towards agriculture and rural development or, for that matter, the overall development strategy in many developing economies of all shades of ideology. Some of the altered perceptions are encapsulated in the report of a group of eminent experts - convened under the auspices of the United Nations and chaired by H.E. Mr M. Fraser, a former Prime Minister of Australia. Although focusing exclusively on Africa's commodity problems, many of its recommendations for re-energizing the commodity sector are applicable to other developing economies as well (see box 2).

Figure 3

Average annual growth rates of gross national product (GNP) overall and per capita, 1980-1991



Source: UNDP. (1994, p.212).

a/ Including China, the figures without China being 9.3 and 8.3 per cent, respectively.
b/ Including the Caribbean.

42. The reassessment among various groups of developing economies began in the late 1970s. It is based in part on the striking success of a large number of newly and nearly industrializing economies. Their rapid and sustained economic growth demonstrates clearly a strong complementarity between an outward policy orientation and agriculture-led initial phases of development; many of these economies are in East and South-East Asia (Nishimizu and Page, 1989, pp.391-413; and ESCAP, 1992a, pp.126-130 and pp.183-194).

43. The new approach has also been bolstered by the notable achievements of India and Indonesia, among other commodity-dependent economies. Through concerted investment in infrastructure and support services, among other promotion measures, India, by and large, achieved self-sufficiency in food grains and Indonesia has emerged as an occasional exporter of rice since the mid-1980s, a situation not easily predictable even a decade before when these two countries were the world's largest importers of cereals and rice respectively.[8]

Box 2

An approach for commodity-sector development in Africa a/

"The state of international primary commodity market and the state of African economies have been at the top of the development agenda for the past quarter century. Many proposals have been advanced and acted upon, so much so that there is a strong temptation to think that anything worth saying has already been said. This report argues, however, that a clear focus on commodity strategy has often been absent" (p. 3).

"One the oldest lessons of politics and economics is the difficulty of breaking free from established modes of thinking and practice". "For the last few decades, both the advice and practice of policy making in Africa have underlined a need to move away from commodity production and invest in other, more dynamic, activities". "The calamities of recent years have, paradoxically enough, created conditions in which the radical reorientation of development policy towards using rather than neglecting the commodity sector is a distinct possibility" (pp.7-8).

"The continent of Africa, despite its problems, has ... a great potential to increase production of existing export crops and to develop new export products, or to process existing export products or by moving into industrial production" (p.26). (But) "without dynamism in (the commodity) sector which is overwhelmingly the most important in every African economy, transformation of economic structures will remain an idle hope" (p.3). "The critical role of the commodity sector in Africa's economic development will remain for a considerable time" (p.29).

"Global consumption of almost all of Africa's major export commodities continues to rise. Nevertheless, prices for many primary non-oil commodities have fared poorly ... Terms of trade for (these) commodities have fluctuated but have generally declined since 1960" (p.28). "We judge ... (that) developed countries do not provide the kind of market access that the developing countries of Africa need or which would be available if the developed countries ... made the playing field more level" (p.30).

"If Africa is to be successful in expanding its production of its existing commodity mix at a more competitive level, or in diversification into new or processed products, the question of market access becomes extremely important" (p.30). "Yet much more important is the ability to sell competitively despite these difficult circumstances - as some of Africa's competitors have shown in expanding their market shares in commodities of importance to Africa" (p.33). (Despite) "similar market problems, ... they have progressed while Africa has fallen further behind" (p.28).

"(The) required changes (within the commodity sector) will not take place without a macroeconomic policy and institutional framework that enables and encourages production expansion, productivity growth and increased competitiveness" (p.35). (In addition) "policies will need to cover such areas as: more effective agricultural research and extension services; better rural education and a greater emphasis on agricultural education in universities and colleges; a greater reliance on market-based pricing policies; the development of environmentally sound farming practices, assistance with packaging and quality control, better knowledge of the requirements of overseas markets, and vigorous promotion; provision of adequate banking and credit facilities and improvement in transport and storage facilities including ports, roads and collection points; a greater involvement of the private sector throughout the whole process of input supply, marketing and distribution; the establishment of reasonable and practical rules for the operation of foreign corporations; the search for overseas partners for joint ventures to promote marketing and diversification in all commodity areas; encouragement of diversification at all levels and directions; and producer cooperation (etc.)" (pp.36-37).

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a/ Extracted from United Nations (1990) with the page numbers given in brackets at the end of the quoted sentences or paragraphs; the words bracketed within or outside a quotation are inserted, or are given a capital letter to start a new sentence or paragraph.

44. The nature and urgency, as well as the timing and speed of policy reorientation and reform, have not been the same everywhere; and so are the inevitable mid-course corrections or even some measures of policy reversal made by many economies during the implementation process. Notwithstanding these caveats, however, economists generally accept that sustained economic growth, diversification and industrialization over time require a strong, efficient and flexible agricultural sector for subsistence and/or trade, at least at the initial stages of the development (United Nations, 1990, p.3). This is viewed as being necessary to ensure a closer match between the various components of rural output, and the evolving patterns combined with changing levels of domestic and external demand. There is also a need to release, as appropriate, real resources for the support of industrial and other sectoral developments through rising agricultural productivity and incomes.

45. The new lines of policy thinking have resulted in a less taxing (price) incentive structure towards, and a less restrictive macroeconomic impact on, agriculture. Selective trade liberalization, economic policy deregulation, and the maintenance of a more realistic and sustainable exchange rate are important in these connections. In addition, greater emphasis given to non-price stimuli has hastened and greatly diffused the green revolution in Asia, among other regions.

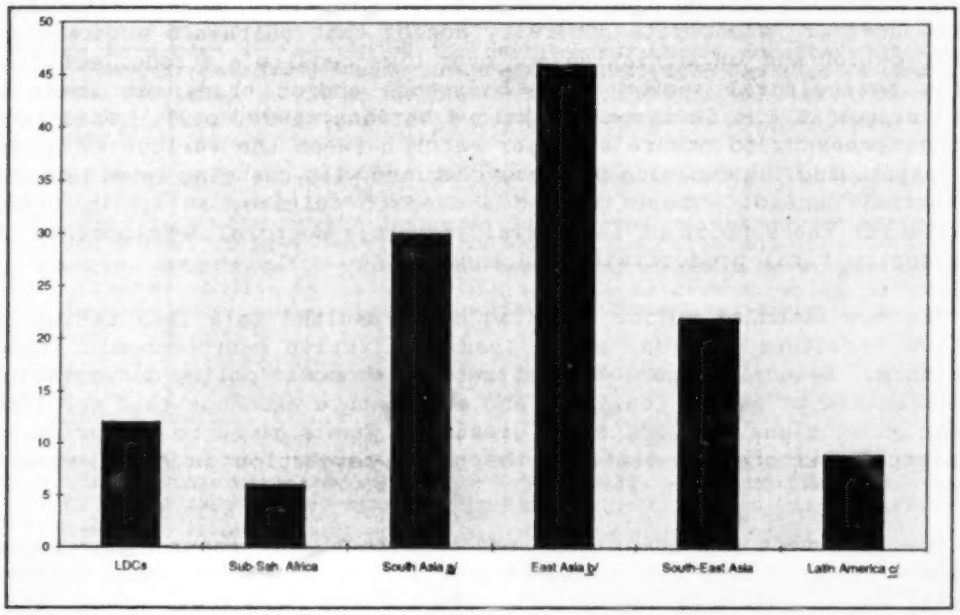
46. The pertinent non-price measures include human resource development to increase rural literacy, skills and adaptability plus institutional improvements to ensure easier and more equitable access to land resources, credit and other essential inputs. There is, at the same time, a need for accelerated investment in a wide range of agricultural infrastructure, technologies and ancillary areas. Indeed, the single most important factor behind the upward trend in rice yields in Asia, noted previously, is good water control. This is attributable to both an expansion in the irrigation network, and improvements in the maintenance of canals, ditches and other water conduits (ESCAP, 1991, pp.152-153); in turn, it has greatly facilitated the spread of high-yield rice varieties (figs. 4 and 5).

47. Experience has shown that non-price intervention often exerts a far greater impact than price incentives alone on farm output and productivity, as well as on the growth-promoting proliferation of off-farm, rural activities and services. Such intervention is also essential for the correction of prevalent market failures, imperfections, rigidities and fragmentation which price incentives on their own cannot adequately redress.

48. Although, as mentioned, these precepts are widely shared, varied attention has been paid to the provision of agricultural support facilities and services across developing regions; also the levels of efficiency, responsiveness, equity and dedication with which existing infrastructure and institutions are managed, operated, and rendered accessible tend to be highly diverse. The configuration of all these factors and forces appears to account, in no small measure, for the uneven success in rural strengthening and diversification achieved by developing economies to date, including many of those under various policy reform and structural adjustment programmes.

Figure 4

Proportion of irrigated in total arable land, 1987-1990



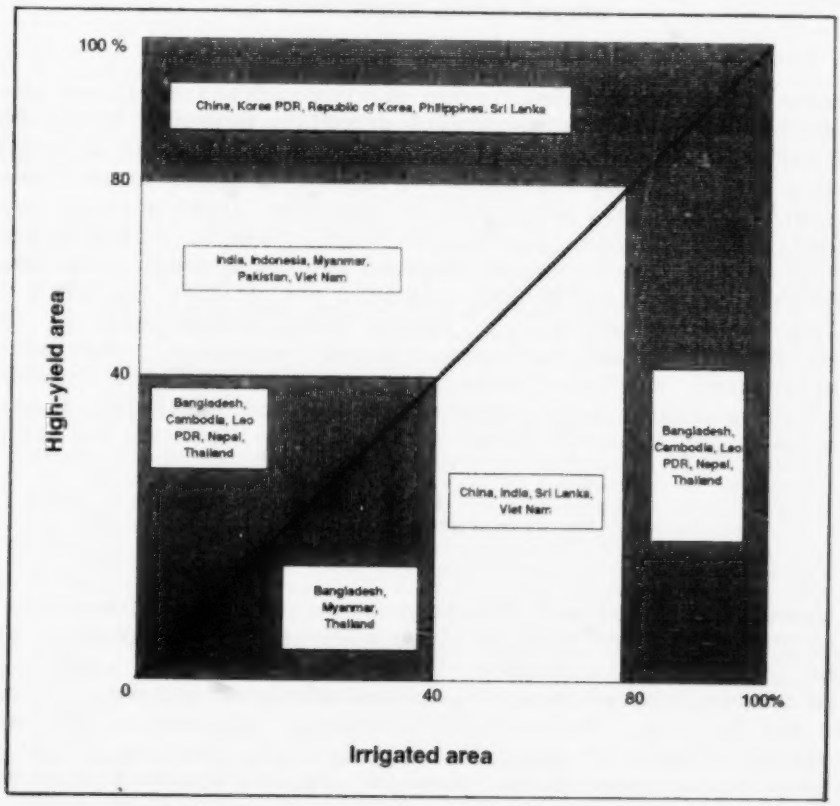
Source: UNDP (1994, p.211).

a/ Excluding India, the percentage being 51.
b/ Including China.
c/ Including the Caribbean.

49. In particular, many infrastructure and institutional support services are usually not tradeable although their absence or incomplete complementarity will adversely affect production, productivity and trade. Besides, the long gestation period for, and lumpiness in capital requirements of, many of such facilities render them less attractive to private investment and participation. On the other hand and compared to demand management, however, systemic supply responses are a long-term process, especially if supply difficulties originate from bottlenecks, shortages and inadequacies in infrastructure, institutions and human resources. Thus, expedient efforts to regain or sustain balance in the budget and external accounts can lead to an accumulation of longer-term problems. This applies especially to cases where short-term solutions result in deep cuts in, as well as less-than-judicious sectoral allocations for, the provision, operation and maintenance of hard-won infrastructure and support services for agriculture and human resource development.[9]

Figure 5

Percentage of rice acreage under irrigation and high-yield varieties



Source: Yap (1994), p.3).

Chapter III

AGRICULTURAL PROTECTION

50. Commercial farming and many other agricultural activities are heavily subsidized and protected through a variety of policy measures in a large number of developed market countries, as well as in several third world economies. Such a policy stance has had a checkered history (box 3). Agricultural intervention is not necessarily or always motivated by the cost disadvantage, measured by global competitive standards, associated with domestic primary production; indeed, several of the farm products involved are not a traditional export item from many of these countries. Rather, the main policy aims include a long-term maintenance of relative equity in income distribution and in employment opportunities across various national economic sectors. The promotion of technical efficiency and environmentally more sustainable resource use, stabilization of producer and consumer prices, and enhancing food security constitute other important objectives.

A. Massive resource transfers

51. The above policy thrusts are by and large unexceptionable. But the modalities of implementation have combined with other developments, several of which are the intersectoral outcomes of such policy steerage itself, to result in entrenched and cumulative distortions to both domestic and external production and trade in agriculture. Furthermore, there has apparently been an inherent decline in the efficiency of agricultural subsidies (despite rising budgetary outlays); this arises from uneven rates of support across the range of farm products and, on the other hand, from the differentiated effects associated with various support measures (even if the rates of subsidies are the same).[10]

52. In general, intervention measures have been implemented mainly through guaranteed support prices for domestic agricultural producers. Among OECD countries, for example, such assistance is provisionally estimated to average some 77 per cent of the aggregate level in 1992-1993. Producer subsidy equivalents became relatively stable from the early 1990s as a consequence of the ongoing reform of the CAP. However, they still reached an estimate of almost US$ 166 billion per annum in those two years; the corresponding average being US$ 98 billion annually over 1979-1986.

53. Taking into account all transfers from taxpayers and consumers (less budget receipts from tariffs on agricultural imports), the total resources channelled to agricultural and related policies (such as rural and environment) amounted to almost US$ 337 billion a year during 1992-1993. In particular, taxpayers' transfers alone averaged US$ 163 billion per year over the same period, compared to just over US$ 58 billion of net annual disbursement of OECD official development assistance (ODA) to developing countries bilaterally (US$ 41 billion) and through multilateral channels (US$ 16 billion).[11] Indeed, the ratio of ODA to taxpayers' transfers has remained around 36 to 38 per cent over the past several years (fig. 6).

Box 3

Overseas competition and domestic market intervention a/

Following a series of liberalization measures in the mid-19th century, external agricultural trade among European countries (and their colonies) was largely free from tariffs and other restrictions. From the early 1870s, however, there were sharp increases in grain exports from North America, the now Russian Federation and, facilitated by the Suez Canal passage, Australia. The availability of commercial refrigeration also substantially raised frozen meat exports from the United States and Australia from the mid-1870s.

The consequent falls in agricultural prices, which were particularly sharp for grains, induced a reversal of policies; tariffs were levied on agricultural products for protective purposes in Belgium, France, Italy, Germany, Portugal, Spain, the United States, etc. from the late 1870s. Denmark, the Netherlands and the United Kingdom were among the countries that adhered to the principle of free trade; through concerted measures and reforms, however, the former two countries were able to transform their agriculture and become highly competitive in livestock and dairy products.

Agricultural tariffs had, by and large, been suspended during the First World War and the immediate post-war period of food shortages in Europe. With the recovery of agriculture and increased food supplies, tariffs were reimposed by several countries. Aggravated by the global depression of the late 1920s and early 1930s, a second line of defense became necessary as surplus producers and exporters were prepared to sell almost at any price. One of the most effective non-tariff barriers (NTBs) was the legal requirement to use a certain percentage of local wheat for grinding (the milling ratio). This was reinforced by the introduction of import quotas on a wide range of products. In addition, there was far-reaching intervention in domestic farm production and marketing, involving at times government purchases at fixed prices. Denmark and the Netherlands consequently felt obliged to intervene in domestic agriculture to improve export competitiveness. The United Kingdom also introduced duties on a number of farm products, but imports from colonies continued to be free of restriction.

To relieve shortages and balance-of-payments pressures in the immediate period after the Second World War, European agricultural production was strongly encouraged through a variety of support measures - including credit subsidies, price supports and income guarantees to farmers. Increased supplies induced a change in policy thrusts from the early 1950s, with greater emphasis on selective expansion, enhanced efficiency, and reduced income disparities within as well as across domestic sectors and regions.

Government intervention then became more extensive and entrenched in agricultural production and trade; the cost of support and the degree of protection rose substantially in consequence. It was against this complex background that the Common Agricultural Policy (CAP) of the then European Economic Community was designed and implemented.b/

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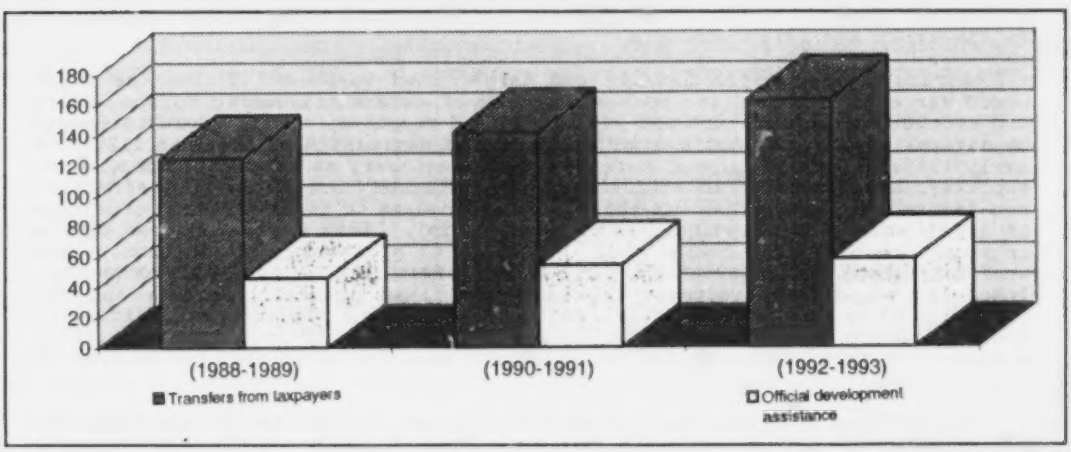
a/ Based on Tracy (1993, pp.148-162).
b/ Tracy (1993, pp.163-199 and 214-244) also contains detailed discussion of the evolution of the CAP, as well as the nature, extent and modalities of government intervention in North America, Australasia and Japan.

54. As regards rice, for example, provisional data indicate that market price support accounted for 76 per cent, and direct payments another 12 per cent, of total annual assistance among OECD countries in 1992-1993. Table 3 provides a number of provisional estimates concerning the proportions of producer and consumer subsidy equivalent; they are expressed as a percentage of the adjusted value of production or consumption, and denoted as percentage producer subsidy

equivalent (PPSE) and percentage consumer subsidy equivalent (PCSE), respectively. In addition, producer nominal assistance coefficient (PNAC) and consumer nominal assistance coefficients, (CNAC), measure the unit price wedge between domestic and border prices on the production or consumption side, also within OECD membership. Thus, the higher the value of PPSE and (when negative) PCSE, the larger the annual monetary transfers accrued to rice producers or of an implicit tax on consumers. Similarly, the bigger the assistance coefficients, the greater are the distortions or inefficiencies in production or consumption.

Figure 6

Transfers from taxpayers associated with agricultural policies among OECD countries and net disbursements of official development assistance among Development Assistance Committee members (US$ billions; annual averages)



Source: OECD (1994b, p.122; and 1995, p.A.9-A.10).

Note: The Development Assistance Committee (DAC) of the OECD consists of 21 member States and the Commission of the European Communities at present; they are thus slightly different from the OECD countries as a whole.

55. Production subsidies to rice farmers among OECD countries are highest in Japan, almost equivalent to the value of their output in the early 1990s; the corresponding levels being around one half in the case of the United States and the European Union as a whole. Australia, however, registered the lowest as well as the sharpest decline in subsidies relative to rice crop value. Generally, the PPSE has tended to fall marginally or to increase in other OECD members or economic groups as a whole.

56. In absolute terms, annual assistance to rice growers in Japan is estimated to be worth ¥ 2,565 billion a year (or about US$ 21.6 billion) during 1992-1993; this amount was equal to 91 and 61 per cent, respectively, of the gross value of PSE for all crops and of the net total PSE for all agriculture products. In comparison, however, the rice economy features only at the margin of resource transfers associated with domestic agricultural policy in other OECD producers;

this cereal is not a traditional staple and, with few exceptions, is not cultivated in any scale in those countries.[12]

Table 3

Annual averages of gross percentage rice producer/consumer subsidy equivalents (PPSE/PCSE) and nominal assistance coefficients in rice production/consumption (PNAC/CNAC) among OECD countries, various periods

	PPSE	PCSE	PNAC	CNAC
	(percentage)		(ratio)	
Australia				
1979-1986	24	- 53	1.28	2.11
1987-1993	12	- 27	1.14	1.39
1992-1993	10	- 27	1.10	1.37
European Community a/				
1979-1986	42	- 30	1.62	1.45
1987-1993	59	- 52	2.32	2.15
1992-1993	56	- 50	2.15	2.00
Japan				
1979-1986	79	- 64	3.68	2.83
1987-1993	90	- 81	6.14	5.67
1992-1993	94	- 84	7.17	6.59
United States				
1979-1986	30	3	1.39	0.97
1987-1993	45	0	1.76	1.00
1992-1993	47	- 2	1.84	1.03
OECD				
1979-1986	74	- 61	3.12	2.57
1987-1993	86	- 78	4.89	4.67
1992-1993	88	- 86	5.36	5.16

Source: OECD (1994b, pp.226-341).

Note: Data for 1992 are revised estimates and data for 1993 are provisional only.

a/ Ten members during 1979-1985 and 12 members since 1986; including the former German Democratic Republic since 1990.

57. Given the predominance of market price support among agricultural intervention measures as noted previously, domestic rice prices tend to be noticeably higher than their border counterparts; the gap is particularly wide in Japan and, to a lesser extent, within the European Union. So is the implicit tax borne by rice consumers. However, the rates of change displayed by most assistance coefficients have been relatively stagnant in recent years, as can be expected from the reform-induced patterns of PSE discussed earlier (table 3).

58. There are comparable historical estimates of the ratios of producer prices to border prices for rice in Japan, the Republic of Korea and Taiwan Province of China over 1955-1993. The nominal rate of protection (NRP) averaged 50 per cent during 1985-1959, 160 per cent in the early 1970s, and over 500 per cent two decades later in the case of Japan. Significantly, however, domestic rice prices were lower than their external counterparts in the other two North-East

Asian (and developing) economies up to around the mid-1960s in the Republic of Korea, and the late 1960s in Taiwan Province of China. Since then, the NRP rose from 6 to 288 per cent between the early 1970s and late 1980s in the Republic of Korea. As regards Taiwan Province of China, a rice surplus producer, the rate reached 140 per cent in the early 1990s, compared to less than 60 per cent in the mid-1970s (Anderson and Hayami, 1986 pp.128-135; and Anderson, 1994, pp.20-21).

B. Trade-offs in efficiency and equity

59. Several issues emerge from the above discussion. The setting of intervention (or support) prices in excess of clearing levels in domestic markets transfers resources from consumers to producers. Besides, big farmers or large-scale producers tend to gain more than their smaller counterparts; this is attributable also to the concentration of support on commodities that benefit from both economies of scale and more productive technologies in many OECD countries. Although the transfers involved by and large have tended to stabilize in their recent progression (noted above), they remain relatively large in absolute terms in a number of countries.

60. Within the rice economy, in particular, the total consumer subsidy equivalent (CSE) was estimated to be almost US$ 22 billion in Japan, and US$ 0.5 billion within the European Union during 1992-1993. Such an implicit tax is regressively more burdensome on less privileged sections of the consuming public, who tend to spend a larger proportion of disposable income on rice, among other food items from protected agriculture. Among OECD members, for example, expenditure on all food items normally amounted to around 20 per cent of consumer outlays in 1990; the concerned proportions were much lower in the United States and Canada, but noticeably higher in Norway, Switzerland and Turkey (OECD, 1994b, p.185).

61. An additional burden on domestic taxpayers materializes when accumulating domestic surpluses, arising because of remunerative support prices and the induced applications of advanced technologies, have to be disposed of with export subsidies. The involved resource transfers thus will benefit foreign rice consumers; but this is not necessarily a "free ride": there are at the same time considerable costs borne by the world community as a whole.

62. The nominal assistance coefficient (NAC), if sufficiently greater than unity, will necessitate the imposition of import defensive measures - notably licensing, quotas, tariff quotas and variable levies, etc. A ban on rice imports was normally a long-standing policy in Japan and the Republic of Korea, for example, until the implementation of the Uruguay Round Agreements starting from 1995. In several countries also, import tariffs on rice often exceed the landed cost of the commodity itself.[1] In addition, export restitution and import protection in turn generate ripple effects and otherwise impose costs on efficient producers from countries not completely willing or able to provide matching assistance. Such an adverse impact may range from depressed export prices, destabilizing adjustments forced on competing exporters, spreading distortions across sectors in consequence of anticipated disruptive retaliation, to aggravating trade disputes and tensions.

63. There are other efficiency and equity issues as well. On the one hand, the involved resource transfers to rice farming, and to agriculture in general, have become huge over time. Given the tightening budget constraints, this has imposed considerable opportunity costs in terms of the unsatisfied resource needs in other sectors and activities, as well as for other important policy objectives. Indeed, in a number of cases, such expanding financial diversion has become unsustainable.

64. At the same time, however, the benefits of agricultural price support and input subsidies have been widely dissipated across more sectors than were originally intended; both upstream input and downstream processing industries have adjusted prices to obtain a share of economic rents from existing programmes. The net gains to farmers may be considerably smaller than the consumer and budgetary transfers would appear to indicate (Anderson and Hayami, 1986, p.114; Moon and Kang, 1991, pp.55-57; and OECD, 1994c, pp.46-47).

65. On the other hand, high protection has attracted more resources into farming and ancillary industries which otherwise could have been allocated more productively to other sectors or applications. The possible welfare losses or real income forgone could be substantial, particularly in agricultural activities with extensive backward and/or forward linkages. Indeed, significant amounts of resources are invested in both upstream industries (e.g. the production of chemical inputs, farm machinery, etc.); as well as those within the downstream sectors of agro-food processing and distribution in industrialized countries. In terms of GDP in 1991, for example, the value-added from United States agriculture accounted for around 1.7 per cent, but the agro-food sector (net of farm inputs), farming and downstream industries provided over 11 per cent. Among other OECD countries, the GDP shares of food processing alone typically were at least 30 per cent larger than those associated with agriculture (OECD, 1994b, pp.184-185).

66. Furthermore, the excess normal profits generated by protective agricultural policy led to bidding up the prices of agricultural inputs in fixed supply, namely land; there is thus a tendency to acquire or hold on to this productive factor as an appreciating capital asset. In cases of government-imposed production limits, the tradeable quotas can take on the characteristics of a scarce asset. There is some evidence to suggest that around one half of the transfers to farming in the United States has been absorbed into higher land values; the figures for Western Europe may be even higher. Similarly, production quotas can command rents which are equivalent to a significant proportion of product prices received by an average farmer.

67. In addition, most of the economic rents accrue to asset holders who are not necessarily also the farmers or tenants that intervention measures are designed to help. Moreover, the benefits emerge once, at the time when the policy was introduced; potential entrants may thus not be encouraged as new economic rents can only be reaped with proportionately increased levels or rates of subsidization of the farming activities under consideration.

68. At the same time, for any given level of agricultural support, land utilization is more intensive with technological innovations and applications having a strong land-saving bias; in consequence, the sustained and widespread use of fertilizers and pesticides have considerable implications on non-renewable energy resources and the state of the environment as a whole (Moon and Kang, 1991, pp.57-58; and OECD, 1994c, pp.46-47 and 1994d, pp.13-23).

Chapter IV

FROM TAXING TO PROTECTING

69. Domestic policy stance shifts from negative to high levels of protection for agriculture among market economies at opposite ends of the development spectrum. In that connection emerges yet another set of issues of considerable importance to commodity trade and development policies at the national and extranational level. This relates to the changing trajectories of agricultural comparative advantage particularly in countries that are densely populated and relatively poor in natural-resource endowments, but which, nevertheless, have managed to achieve a fast pace of economic growth and structural transformation.

70. It should be noted here that the issues involved do not readily lend themselves to precise quantification and definite generalizations due to a host of conceptual, statistical and methodological problems (Brown and Goldin, 1992, pp.121-129). Nevertheless, a number of apparent patterns and policy implications can be distilled from the rich development experience.

A. Evolving agricultural comparative advantage

71. Primary commodities, mostly farm produce, used to be the mainstay of merchandise exports from Japan, the Republic of Korea and Taiwan Province of China. Their share in Japanese trade earnings was about two thirds in the 1880s, and reached as high as 90 per cent for the other two economies during the 1950s. Primary trade was declining in importance, providing less than one tenth of export receipts in Japan during the mid-1960s, and in the Republic of Korea and Taiwan Province of China in the early 1980s. Labour-intensive textile and clothing products became a major source of foreign-exchange earnings in the ensuing phase of development. They were equivalent to one third of total export revenue in Japan during most of the three decades before the Second World War, and in the other two economies for a large part of the 1970s.[14]

72. In all three economies, the agriculture sector was taxed initially. The rates of such net-resource transfers clustered around 9 to 12 per cent in Japan during the first three decades of the 20th century. The weighted averages of nominal protection for agriculture ranged from -12 to -15 in Taiwan Province of China and the Republic of Korea in the late 1950s. Tariff protection against rice imports was first imposed in Japan in 1904 but was escalated in the next two decades to promote rice self-sufficiency.[15]

73. Generally, farm protection in Japan shifted to a positive stance after the Second World War. In the other two economies, the policy turn around was made in the mid 1960s and agricultural subsidies expanded rapidly (but at different rates) during most of the following two decades. The three East Asian economies above thus rival with a number of European countries for the dubious honour of having some of the highest prices on several farm commodities within the global community. For example, total resource transfer per full-time farmer was estimated to be over US$ 23,400 per year in Japan during 1992-1993, compared to

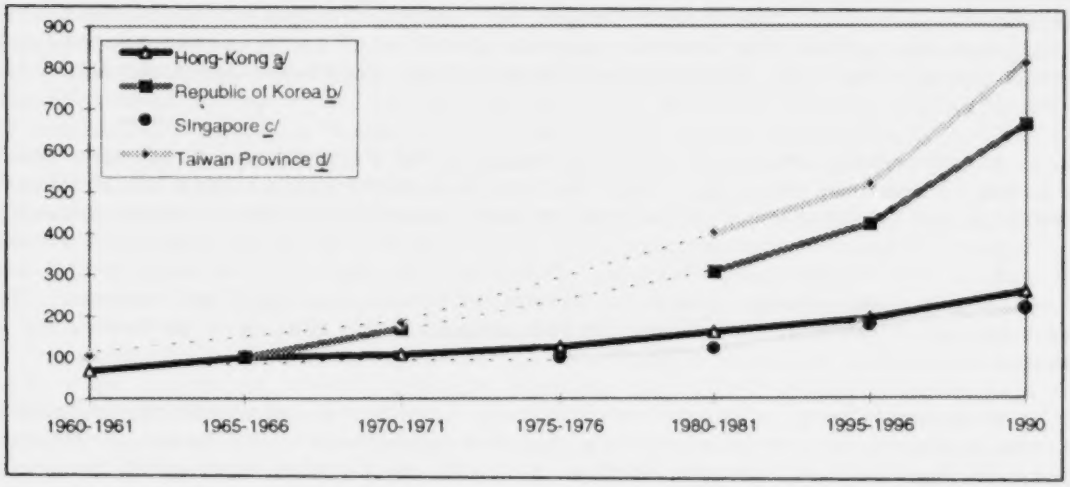
an average of US$ 15,800 within the European Community and US$ 14,200 among OECD members as a whole.

74. A number of common denominators can be identified behind such reversal of agricultural policy impact as well as its relatively rapid progression over time. To begin with, there was the phenomenal rate of economic growth sustained by or persisting in the Republic of Korea and Taiwan Province of China over long periods of time. These two NIEs registered annual rates of GDP expansion averaging 9 to 10 per cent during 1960-1992. Japan, on the other hand, moved downwards in the last two decades from the exceptionally high economic growth of some 10 per cent a year achieved in the 1960s. The country's lower trend growth in the ensuing decades, although more typical of high-income and mature industrial countries, is still higher than those of other OECD countries.

75. As can be expected, real income per head of population rose annually by 6 per cent in Japan, and by 7 per cent in the two NIEs over the last three decades. Workers' earnings in real terms were on a similar trend. However, the rise in labour compensation was faster than the rate of increase in per capita real income in Japan during part of the 1950s, and in the Republic of Korea and Taiwan Province of China in the 1970s. By and large, real wages in the Republic of Korea tripled between the mid-1960s and the 1970s, and then doubled again in the following decade; those in Taiwan Province of China doubled during each of the three decades between 1960 and 1990 (fig. 7).

Figure 7

Index of wages in newly industrializing economies, 1960-1990



Source: Asian Development Bank (1994, p.207).

a/ Real wages.
b/ Real labour earnings; data not available for 1960-1961 and 1975-1976.
c/ Average real monthly income per worker; data not available for 1970-1971.
d/ Real earnings in manufacturing; data not available for 1965-1966 and 1975-1976.

76. The three economies' comparative advantage in agricultural exports and, in due course, in labour-intensive manufactures as well, became severely eroded. Largely as a result, the NIEs' trade specialization changed from agricultural commodities to textiles and clothing in the mid-1960s; Japan was also losing its "revealed" comparative advantage but in the above labour-intensive products (to its East Asian neighbours) during the same decade. After peaking in the late 1970s, the Republic of Korea and Taiwan Province of China's comparative advantage in textiles and clothing, in turn, has declined in favour of capital- and/or knowledge-intensive manufactures. The space so vacated has been taken up by the newly industrializing economies in South-East Asia and elsewhere.

77. The size of land holdings per farm household is limited or constrained institutionally in most East Asian economies; as of the mid- and late 1980s, about two thirds of such holdings in Japan, the Republic of Korea and Taiwan Province of China were of one hectare or below (Phillips, Winton and Mai, 1994, p.237). Partly as a result, labour productivity in agriculture within the subregion has remained strikingly low by the standards of industrialized countries; it has also grown much slower than manufacturing workers' productivity.[16] There was thus the pressing need to ensure that farm incomes keep pace with the rapid increases in urban wages - through a wide array of intervention measures including price supports and, on the other hand, protection from import competition.

78. In nominal terms, such assistance increased rapidly in the Republic of Korea and Taiwan Province of China from the 1970s, as it had done in Japan a few decades earlier. The average NRP on grains, meat and soybeans, for example, expanded from less than 10 per cent in the late 1960s to approximately 200 per cent in the Republic of Korea and 50 per cent in Taiwan Province of China in the ensuing two decades. There were larger but uneven changes in individual rates of nominal protection for certain cereals, beef and, to a lesser extent, pork within the same periods (Anderson and Hayami, 1986, pp.20-23; and Anderson, 1994, pp.19-21).

79. Effective demand for protective support for farming was also made easier by other concurrent developments. On the one hand, expenditure on foodstuffs generally became a minor item in the average household budget. Notwithstanding the upward drift in its prices, rice had absorbed only 12 per cent of such outlays in the Republic of Korea by 1980; the pertinent ratios were even lower, 5 and 2 per cent respectively in Taiwan Province of China and Japan. This represented a drop of some two thirds compared to the same proportions two decades earlier.

80. As regards supply, there has been both a relative and absolute contraction of the agricultural contribution to GDP and employment. In terms of relative share in aggregate output during the early 1990s, farming accounted for just 2 per cent in the case of Japan, and 8 and 4 per cent respectively in the two NIEs under consideration. The latter figures are not much higher than those for several industrialized countries: the average farm share was 2 per cent of GDP among OECD members (excluding Turkey), and 2.5 per cent within the European Union in the same period.

81. Agricultural employment follows a similar trend. During the early 1990s, farm workers constituted around 5 per cent of the domestic workforce in Japan, less than 10 per cent in Taiwan Province of China, and some one fifth in the case of the Republic of Korea. Comparatively, the corresponding shares ranged from 2 to 3 per cent in the developed countries of North America, to generally around 4 to 6 per cent in the larger European market economies (except notably the United Kingdom).

B. Structural changes and protectionism

82. A number of issues and implications from the brief discussion above can now be highlighted. The calculus of political economy has resulted in a level and spread of resource transfers to an economic sector which is irreversibly declining and of limited significance at present. The asymmetry between agricultural production and manufacture is thus striking in that regard.

83. High-performance East Asian economies have long been propelled by an outward-oriented policy thrust; in fact, a new set of nomenclature has been coined to denote such persistent economic success - including the "four tigers", "four dragons", the NIEs, the high performance economies and the East Asian miracle (World Bank, 1993). Yet, a large number of East Asian farm producers have been effectively insulated from international competition - with appreciable spillover effects on structural adjustment, trade and development within and across nations.

84. It is equally sobering to note that the growth of farm protectionism, as a consequence of structural change, has not been and will not solely be restricted to East Asia. A similar historical trend, but of varying degrees of progressiveness, has been occurring in most of the currently industrialized countries in response to the falling trajectories of their agricultural comparative advantage. In Western Europe, for example, it was estimated that the average tariff on imported food (at just under 30 per cent) was roughly equal to that levied on manufacture imports in 1927. By the early 1960s, it had risen to more than 50 per cent, compared to a (falling) tariff of less than 15 per cent on industrial goods. This upward trend apparently continued on to the 1980s (Anderson, 1994, p.17).

85. The few notable exceptions, in relative terms, to the above relates to well-endowed high-income countries of recent settlement in North America and Australasia; these countries have retained strong advantages in the production of a wide range of farm products through not least scale economies, and technology-driven high and rising yields. On the other hand, progression of agricultural protection is also observable in a number of middle-income countries that have grown rapidly and that have, in various degrees, encountered some food deficit. A similar policy stance is also taking place in several other primary-exporting economies as a result of more recent mineral/mining booms (e.g. hydrocarbons, gold, precious stones, etc.) and, unless adequately redressed or reigned in by policy, the accompanying Dutch disease.[17]

86. A snapshot of the pertinent interrelationships as they existed cross-sectionally in the early 1980s is presented as figure 8. Among other implications, it appears that agricultural (especially food cropping) protection

becomes more intensified with higher per capita income and lower comparative advantage in commercial farming. Furthermore, the need for agricultural assistance is unlikely to disappear in the future; indeed, it would probably spread to many other developing economies as they are losing comparative advantage in farming, due to the ongoing process of industrialization and restructuring or, again, to a sudden mining boom. It is also clear from the available experience that such protection would involve huge and, most likely, unsustainable resource transfers.

87. There is a brighter note, however. Although protective barriers may raise internal price and output, the domestic supplies so secured or obtained are probably unable to support and satisfy the enlarged volume, a more diversified range, and higher standards of food consumption as rapidly rising incomes and spreading affluence would dictate. An increasing dependence on food imports (among many other merchandise categories) has indeed been observed in East Asia, even at relatively earlier stages of development.

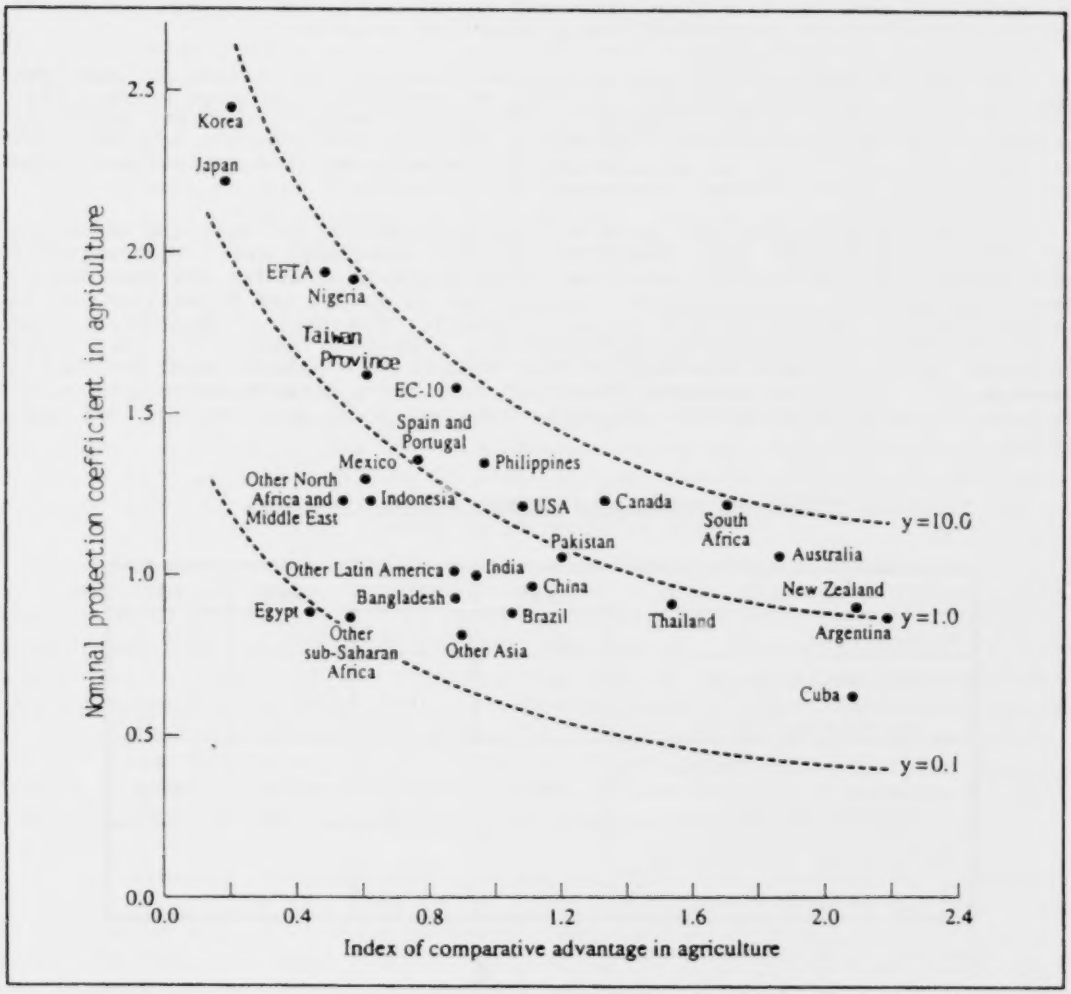
88. In particular, the share of (food and feed) grain needs sourced outside Japan, the Republic of Korea and Taiwan Province of China was 15 per cent in 1960 and 60 per cent two decades later; the corresponding figures for high-value meat products being 3 and 13 per cent, respectively. Consequently, absorption by these three economies of global exports of those items doubled in value between 1960 and 1980. The rate of such absorption has trended upwards in the ensuing years - despite strongly protected domestic agriculture, higher relative prices and, on the other hand, the Engel threshold for certain items, such as food grains and sugar etc.[18]

89. By 1992-1993, for example, the quantities of beef and veal imports had become at least as large as domestic output of these high-value commodities in Japan and the Republic of Korea. All in all, expenditure on imported meat products rose from US$ 3.3 billion to almost US$ 6.9 billion in Japan between 1987 and 1993; it also went up from US$ 15 million to an annual average of US$ 573 million in the Republic of Korea during 1991-1992, before declining to US$ 419 million the following year (FAO, 1994b, pp.322-323). Such sizable import spending and sustained import expansion explain the keen interest shown in Japan, the NIEs and other high-performance economies in East and South-East Asia from major agricultural exporting countries.[19]

90. Several important implications follow. Firstly, as disposable incomes expand in the process of economic development, reliance on food imports (and on better quality and greater varieties of foodstuffs) tends to rise strongly (box 4). Although the buoyancy and elasticities of such demand may vary among specific categories of those imports, the trend towards larger domestic absorption of externally sourced food is reasonably clear, at least in absolute terms. In addition, such a pattern is not confined solely to densely populated economies with relatively scarce land resources such as the situation in, for all practical purposes, Asia.

Figure 8

Relationship between agricultural taxation/protection, relative income levels and agricultural comparative advantage, 1980-1982



Source: Adapted from Anderson (1994, p.20).

Note: The nominal protection coefficient (npc) is the weighted average ratio of domestic producer prices to border prices for grains, livestock products and sugar, valued at official exchange rates (and so understating to some degree the effective taxation of agriculture in those developing countries with industrial protection and overvalued exchange-rates).
The index of agricultural comparative advantage (ca) is the ratio of what domestic production and consumption would be in the absence of food price distortions (modelled and estimated elsewhere by Tyers and Anderson).
The fitted curves (y) correspond to the various relative levels of national per capita income to its global average.
The regression equation with (npc) as the dependent, and (ca) and (y) as two independent variables, yields a correlation coefficient value of -0.85 for a sample of 30 economies and economic groups.
(EFTA, European Free Trade Association).

Box 4

Food imports and the standard of living

Developing countries are almost invariably constrained by varying degrees of foreign-exchange shortage. Import of consumer goods, including food items, are generally regarded as a dispensable and second-order need - except for health and nutrition reasons, and other highly essential purposes.

But policy restrictions, as is evident from the discussions in the text (paras. 90-91), can slow down but not shut out completely imported goods. This applies especially to cases where an effective demand for them cannot be satisfied (in terms of quantity, variety or quality) from domestic sources. The existence of large "grey" or parallel markets in many countries, both developing and (to a much lesser extent) developed, are a pertinent case in point.

Consumer good imports can serve both as an incentive for work and an outlet of long pent-up demand. The trends in imported foodstuffs are illustrative in this connection. Developing countries' expenditure or food imports expanded by over tenfold between 1966 and 1992; it amounted to almost US$ 87 billion in the latter year, a substantial sum by any standard. The rate of absorption from countries less constrained by resources has been much faster so that their relative share of global spending on food imports more than doubled during the same period. They also accounted for over two thirds of developing countries' outlays on imported foodstuffs in 1992, compared to 35 per cent in 1966 (see table).

Trends in food-import expenditure, 1966-1992
(in billions US dollars)

	1966	1975	1985	1992
Global total	40.9	130.6	225.1	389.1
Developed countries - value - percentage share	28.5 70	84.3 65	141.3 63	276.1 71
Developing countries - value - percentage share	8.0 19	29.6 22	56.6 25	86.8 22
Developing countries a/ - value - percentage share	2.8 7	16.4 12	35.5 16	58.6 15

Source: UNCTAD (1994a and c).

a/ Comprising petroleum and manufacture exporting economies.

It is also interesting to note that, by and large, spending on food imports has kept pace with GDP growth. During the period 1976-1992, for example, the industrial market economies have allocated between 1.5 and 2 per cent of their GDP on such imports. The corresponding ratio for oil and manufacture exporters within the developing region doubled to almost 3 per cent between 1976 and 1983; the proportion has apparently stabilized since then, amounting to 2 per cent in 1992.

Clearly, there is mutual advantage to be gained from trade liberalization by food exporters across the globe, despite the Engel consumption threshold for many food items. Some of the ancillary issues and implications are discussed further in the text.

91. This is due to various factors. Other things being equal, domestic farm output even in a healthy economy is unlikely to rise by more than a few per cent per year over time. Besides, most developing countries (including the sparsely inhabited and resource-rich ones) have to face systemic leads and lags in the efficiency and flexibility with which domestic resources can be mobilized, allocated and/or relocated at the sectoral, subsectoral and microeconomic levels. All those misalignments and rigidities will result almost inevitably in mismatched patterns, as well as compositions of local demand and supplies. Furthermore, and given relative prices, few economies can achieve the range and/or quality that several others in the world can offer, whether or not the products concerned are agricultural in nature.

92. The second implication is that higher levels of food imports are an essential input for enhancing living standards, and that the international economy can be a reliable source of food and other goods, *ceteris paribus*. But for such outcomes to be realized, several conditions are essential. One, domestic economic growth and structural diversification must be sustained and sustainable over time, notwithstanding periodic dislocations and transient instability in the process. Two, the necessary supplies of foreign exchange must be earned through commensurate export expansion and/or must be made available otherwise. And three, the international economic policy environment must be conducive to a gainful exchange of goods and services as dictated, by and large, by relative prices and their dynamic evolution among trading partners in the long run.

93. Embodied in those three conditions are a wide range of complex economic issues and policy dilemmas to be resolved within and across nations. Among many others, the need to ensure certain degrees of supply security in basic foodstuffs, as well as of intersectoral equity in earnings and employment opportunities, remain important objectives for policy in East Asia and elsewhere. But this has to be balanced against the long-term gains and other positive externalities obtainable from deepened interdependence and the associated structural change - in various agricultural subsectors, in different categories of manufacture or, for that matter, in diverse types of services.

94. Another set of pertinent issues is that the process of competitive internationalization may have to be jump-started or otherwise assisted; many developing economies have persistently been unable to reach higher orbits of trade complementarities. Such inability may be attributable to a variety of special development constraints and unfavourable initial conditions largely not of their own making. It may also be the result of ongoing transition to a different economic system without the benefit of all the ancillary requirements. These include a wide range of economic, institutional and legal infrastructures, as well as (indirect) policy-control instruments and levers so essential for effective management of market-based variables. Least developed and small island developing countries feature prominently among the categories of disadvantaged economies.

95. The next chapter considers at some length some of the policy issues, implications and options touched on above. In the process, a number of broader perspectives on agricultural trade, diversification and development will be presented and examined.

Chapter V

OLD ISSUES, NEW AGENDA

96. As economies grow and change structurally, they tend to move to other trajectories of comparative advantage. The eroding competitiveness of domestic agriculture has to be compensated for in the calculus of political economy. The search for less costly and more workable options so as to minimize large and entrenched distortions to production and trade has become more pressing with the implementation of the Uruguay Round Agreements.[20] But there is also a simultaneous need to ensure more orderly exit and entry among economies during the various transition processes when economic space is being vacated or occupied. Trade-related FDI can be a viable modality for mutual gains in this context.

A. New policy-making environment

97. The Uruguay Round Agreements generally can create a different set of policy-making parameters with a differentiated impact on the reorientation or transition process, among various groups of economies as well as at different stages of socioeconomic development. Regarding agriculture, all forms of NTBs on farm trade will be converted into tariffs; these together with the previously operative tariff rates will then be bound, and gradually cut (box 5). Thus, one of the striking asymmetries between agricultural and manufactures trade is eliminated from 1995: for the first time in the history of the General Agreement on Tariffs and Trade (GATT) (now the World Trade Organization), all tariffs on farm trade will be bound (compared to about 83 per cent of those on industrial goods). Domestic support for agriculture can continue through "green box" policies, but other types of assistance are to be lowered.[21] Furthermore, the volume of and expenditure on subsidized exports of farm commodities must also be cut. As would be expected, there are various exemptions and accommodations built into those provisions to enhance compliance and ease the transition process.

98. The classical forms of intervention include guaranteed production support, target or procurement pricing arrangements, coupled with commensurate import protection and export subsidies. They are among the market distorting practices that are currently or will soon be prohibited or discouraged. Income supports, directly provided or via adjustment/relocating programmes, do not impact on consumer prices. But these and many non-price, decoupled schemes of assistance (such as those specified in the "green box" package) involve large fiscal expenditure. Such outlays can easily pre-empt a disproportionate share of the limited resources at the disposal of governments in poorer developing countries; they are also subject to periodic public scrutiny when disbursed through treasury payments. At the same time and in contrast to direct or decoupled income support, the scope for import controls is now much narrower, although such instruments can yield substantial revenue (as well as policy rents) through tariffs or quota auctions. Although domestic consumers pay the subsidy in terms of higher prices, in the wealthier countries they also have an ever-decreasing incentive to oppose the consequent market distortions as food outlays absorb an increasingly insignificant part of their household budget.

Box 5

A bird's-eye view of selected provisions in the Agreement on Agriculture

Subject	Rules	Liberalization	Safeguards	Special treatment and accommodations
Market access	- Tariffication of all non-tariff barriers (NTBs) - Bind the overall tariffs - No new NTBs	- Overall tariffs to be cut by 36 (24) per cent - Minimum tariff cut 15 (10) per cent	- Guaranteed current or minimum access - Protection against import surges	- No reduction by least developed countries (LDCs) - Delayed tariffication
Domestic support	- Specification of "amber" type and "green box" policies	- Reduce total outlays on amber policies by 20 (13.3) per cent	- "Green box" policies can continue	- *De minimis* rule - Decoupled support payments excluded - Extra exemptions for developing countries
Export subsidies	- Commodity-specific categorization of assistance - No new subsidies on other commodities	- Lower expenditure by 36 (24) per cent - Reduce volume by 21 (14) per cent	- Adherence to food aid rules - Export credit provisions and guarantees	- Developing countries' internal transport, and marketing costs exempted

Source: GATT (1994a).

Note: Implementation period: 6 years for developed countries and 10 years for developing countries; figures in brackets refer to the magnitudes pertinent to developing countries.

99. It can be visualized that future intervention in agriculture will be more broad-based in focus. The main thrusts are probable towards the provision of infrastructure and other basic facilities and services, including education and training. The great importance of a larger flow of, and more equal access to, institutional finance within the rural sector is indicated in chapter II. But higher output (and hence the degrees of internal self-sufficiency) does not guarantee domestic food security or commensurate economic returns without the ready availability of storage, transport and communication facilities and services.

100. Likewise, research is the fountain-head of new technologies which, in turn, have induced quantum jumps in the productivity of agriculture and agro-processing. This aspect of policy has often been neglected due to more pressing needs, and inadequate supplies of human and other resources; it is likely to receive much greater attention from many developing economies in the future. So is the allocation of adequate resources to improve the related transmission and delivery of new and improved inputs, and to obtain the proper responses and feedbacks at the farm level. It is also necessary to reduce the considerable gender bias in extension work and to accord due recognition to the important role of women. As farmers, women have been an important allocator of resources at the household level in their own right.

101. Indeed, experience has clearly indicated that certain changes in approach, structure and organization are required for an effective research-cum-extension (rather than parallel) programme in many developing countries. To begin with, frontier technologies in agriculture and biology increasingly are guarded secrets; this reflects in part substantial private-research outlays (and expected returns) as well as the growing commercialization of universities and public research institutions. At the same time, the delivery of effective extension services is one of the most complex, unpredictable and problem-prone aspects of agricultural support structures. The reasons are both economic, institutional and sociocultural in character. Furthermore, large segments of the agricultural workforce, landless and upland farmers in particular, have not been the persistent focus of extension services due to resource constraints, among other reasons. Apart from redistributive effects, redirected support services generate significant efficiency gains (Daniel, Green and Lipton, 1985, pp.123-124; Dore, 1989, pp.1665-1675; and ESCAP, 1991, pp.153-155).

B. Agricultural exports and the adding-up problem

102. The fallacy of composition or the possibilities of "congestion" in primary production and exports have again attracted considerable attention in recent years. The seemingly chronic overhang of several agricultural commodities is attributed to inelastic world demand (relative to income growth), insufficient degrees of product differentiation, and a host of other technical factors - including the substitution as well as displacement of materials, transmaterialization and dematerialization.[22]

103. The perception has thus made one complete circle. There were considerable fears of the gripping Malthusian disaster in many regions of the third world until about two decades ago. The 1970s also witnessed great concerns among industrialized market economies about possible future shortages of critical raw

materials and the sustainability of "Spaceship Earth" under the prevailing development patterns.

104. Massive investments in primary production, new discoveries, and the application of advanced new technologies have kept the Malthusian spectre at bay; they have also extended further the limits to economic growth. In the process, many developing economies have attained food self-sufficiency and a large number have become significant exporters of food and/or other primary commodities as well; many others are also vying to attain that status, thus separately adding individual pressures on to a collective difficulty.

105. A large number of foodstuffs and other farm products are subject to elastic demand, especially as disposable incomes expand and affluence spreads. These range from poultry and other meat, dairy produce, fruit and vegetables in original or processed forms, sugar and cooking oils, spices and nuts, horticulture items, and aquaculture and seafood products. The upper levels of income elasticities associated with these groups of commodities are between 1 and as large as 2.20, compared to 3.38 for manufactures as a whole (World Bank, 1994b, p.39). Such positive responsiveness is behind the much faster rate of expansion in food-import expenditure relative to income growth at earlier stages of rapid economic development (see box 4).

106. As a matter of fact, low- and middle-income developing countries' exports of high-value commodities (meat and fish, edible horticulture products, spices, oilseeds and oils, and animal feeds) were worth US$ 52.5 billion in 1990. This was much higher than export earnings on coffee, cocoa, tea, sugar, cotton and tobacco which totalled US$ 26.3 billion. The terms of trade for most of those high-value exports were also generally more favourable. However, the success stories are less widespread: Argentina, Brazil, China and Thailand accounted for almost two fifths of the aggregate earnings on such high-value commodities in 1990 (Jaffee and Gordon, 1993, pp.1-3).

107. Imported food is an essential component (and, indeed, requirement) of a rising standard of living; and the potential market for high-quality food items in both the developed and developing countries is both substantial and expanding by any measurement yardstick. Besides, the various shifts in food demand as a result of spreading affluence do not occur simultaneously or at the same pace across countries or regions. This allows for considerable flexibility in the planning and relocation of productive resources in response to emerging market niches in agriculture or, for that matter, manufacture.

108. Generally, and in the long term, competitive production and trade of food products would be considerably facilitated under the Uruguay Round Agreements - especially those governing NTBs, tariff cuts and bindings, domestic and export subsidies, and Sanitary and Phytosanitary (SPS) requirements (see box 5). But such export-oriented production can yield other positive spin-offs far larger than the nominal earnings themselves. Through economies of scale and scope, it helps to contain domestic cost pressures and, at the same time, effectively enhances domestic living standards by accommodating more broadly pent-up or shifted demand for better or more varied foodstuffs. These largely qualitative aspects of reaped externalities and development have not been accorded due recognition, although they are part and parcel of work-related rewards, individual choice and the feeling of well-being.

C. The multiple catching-up process through FDI

109. Trade-related or driven foreign investment has been crucial in opening up exportable niches and other trade opportunities, including those in food products. FDI is not the only means of access to external technologies, organizational and managerial innovations, and marketing expertise as well as market access. But it is a risk-sharing modality which, at the same time, does not require any sovereign financial guarantee or commitment. Furthermore, such investment is normally not associated with, or supportive of, "white elephant" and non-viable or highly marginal projects.

110. As a matter of fact, FDI has played at the margin a significant role behind the evolving paths and speeds of industrial export development and specialization, particularly among high-performance economies in East and South-East Asia. There, the dynamics of comparative advantage have exhibited roughly the broad contours of the so-called "wild geese flying pattern".[23]

111. The multiple catching-up process in development has not been limited exclusively to manufacturing activities; it also operates in a large number of agricultural (including forestry and fisheries) and mining subsectors. Generally, the foreign resources involved in agriculture are comparatively much smaller than those channelled to industrial projects which, by and large, are much more capital intensive. They embody significant externalities, nevertheless. Apart from market access, the transfer of locally adaptable (or internalizable) technologies is particularly essential in the organization and implementation of several export-oriented aquaculture, horticulture, crop and tree plantation, and fisheries activities.

112. Detailed, comparable serial data on subsectoral distribution of FDI are not available. But the overall FDI inflows to developing Asian economies, at an annual average of US$ 35 billion during 1990-1994, represent a substantial and often irreplaceable addition to domestic investible resources. The corresponding figure on inward FDI received by developing countries in Latin America was US$ 17 billion in the same period, and by those in Africa was less than US$ 3 billion over 1990-1993 (UNCTAD, 1995a, pp.6-7).

113. Strikingly, a large number of developing countries in East and South-East Asia have become important sources of FDI in their own right, especially since the mid-1980s.[24] The outward flow from these economies jumped from an annual average of less than US$ 300 million in 1982-1984 to $3.6 billion over 1985-1989; the figure reached US$ 7.5 billion a year during 1990-1993.

114. A sizable part of intra- and extraregional FDI is channelled to agriculture in developing economies in South-East Asia and nearby subregions. Apart from forestry and plantation projects, external investment and joint ventures under various forms are also present in a wide range of income-elastic commodity groups, such as those noted in the preceding discussion.

115. But there are other stimuli on the supply side as well. An increasing number of developing economies are gradually losing their agricultural comparative advantage (due to rapid income growth and structural transformation). Other compounding factors include tightening environmental constraints and social standards, as well as a severe degradation of their resource base. On the other

hand, several of these developing economies have gained important ownership-specific or other proprietary advantages over a wide range of productive activities; these can be and have, in fact, been profitably internalized through direct investment in other countries; hence the substantial outward FDI flows noted earlier.

116. Inevitably, therefore, current export producers facing rising domestic costs have to reallocate resources across domestic sectors as well as in the form of outward FDI, circumstances permitting. Such an evolving shift has provided, and will continue to open up, economic space and trade/investment opportunities for intra-and extraregional cooperation among developing economies. This kind of interactive cooperation has, for a number of reasons, as yet to receive adequate emphasis. But it is crucial for a more orderly exit and entry process among competing producers of similar exportable merchandise, whether agriculture or manufacture. In particular, the adding-up problems are minimized when increasingly high-cost or uncompetitive producers of commodities subject to inelastic global demand can channel part of the involved resources (as FDI) to other exporting countries that still command a strong comparative advantage in similar commodities.

117. However, FDI flows so far have tended to bypass the poorer and more needy economies in Asia or elsewhere, the well-known "adverse selection" characteristic of private resources. Many of these countries, the least developed in particular, are not well positioned in terms of infrastructure facilities and skilled human resource supplies to attract and effectively internalize a diversified range of foreign capital and exportable production. Supply adjustments are thus rendered particularly difficult in such disadvantaged economies - even if there were not any policy-induced distortions (in the product and factor markets), and if all the price incentives of a market economy could be brought to bear.

118. Many components of social and economic infrastructure are non-tradeables. Their lumpy and long-gestation nature also renders them less attractive for private funding. This disabling constraint in low-income countries by and large is highly location-specific in context. Nevertheless, a possible approach towards the problem is to combine FDI in a particular activity or branch of production (whether in agriculture or manufacture) and the related investment in ancillary infrastructure as a discrete package of interdependent investment projects.

119. The former necessarily involves private capital, whether or not this is sourced in combination with domestic enterprise and finance. The latter component has to be provided through ODA resources at the disposal of governments. This approach is neither unique nor without comparable precedents; it is indeed indispensable in the large-scale development of resource-based projects in many countries, mining and heavy processing industries in less accessible locations in particular.

120. But the synergetic complementarities between public provision and private participation are not sector- or region-specific. And herein lies one of the basic challenges to policy management. This concerns the judicious maximization and sustainable channelling of different types and sources of investible fund, at successive stages of economic transition, in support of an evolving and diversified range of productive activities of significant but prospective gains

in economies of scale and scope. The export-oriented, FDI-based production of primary commodities subject to high-income elasticities of demand is especially pertinent in the above context.

D. A final note

121. There are several impressions that emerge from the analysis and discussion in the preceding four chapters. A general perspective is that there are not predetermined paths and/or ready answers to a host of strategic and highly complex policy issues associated with economic growth and structural change (or diversification). This includes the sustainable management of evolving comparative advantage in various (subsectors of) agriculture or, for that matter, manufacture. Policy management is more like composite art rather than an exact science with precise and uniform prescriptions across time and space.

122. The exact contours of such a development and transition path have to be charted on the basis of location-specific potential and problems facing each country in its globalization process. Such endowments and difficulties (whether natural, inherited or created) are necessarily diverse among countries' initial/current economic, sociocultural, environmental and political conditions, circumstances and institutions. This implies, in turn, inevitable differences in the scope, sequence, speed and timing of the requisite policy adjustments and reforms; as well as in the expected outcomes from, and systemic demand and supply responses to, implemented policy measures.

123. The heavy costs, severe burdens and pervasive dislocations associated with structural and policy transition to various levels of dynamic comparative advantage cannot be underestimated. Nor should be the strength and resistance of sectional interests and political constituencies that have, in various ways, rendered economic distortions and structural rigidities in protected or promoted sectors or activities far more durable and pervasive than could be expected a priori or *ex-ante*. But there are no short cuts to sustainable adjustment and success.

124. Notwithstanding negative economic shocks and less than fortuitous external circumstances, a well-designed and coordinated adjustment programme can help ease transitional problems. But in many developing countries in particular, the depth of state capacities and resources cannot be assumed as being always adequate for the comprehensive tasks at hand. Adequate analytical capabilities, administrative cohesion and dynamism, as well as reasonable insulation from the charged political environment for policy managers and coordinators can contribute greatly to the coherence, speed and timeliness of government responses; they also serve to enhance the degrees of dedication and coordination with which policy changes and adjustments are implemented and monitored. The availability of ancillary instruments and institutions are also equally important. Lags and mismatches in domestic supply and demand reactions at various levels of economic aggregation are frequently due to policy and institutional levers and linkages which do not connect to, or contact only loosely with, the pertinent economic variables and parameters requiring modification and adaptation.

ENDNOTES

1. Chronic malnutrition is defined in terms of daily calorie intake which is 1.2 times or more below the basic metabolic threshold. This rate of deficiency tends to prevent people from leading a normal life and can result in stunted growth in children. For details of various estimates of poverty, see FAO (1987a, pp.59-67), World Bank (1986a and 1990, pp.27-43), Asian Development Bank (1992, pp.244-246), and UNDP (1994, pp.134-135 and 164-165).

2. Indeed, despite the considerable difficulties in establishing empirically precise causal links, there is considerable evidence of the regressive impact on vulnerable social groups attributable to short- and medium-term stabilization and structural adjustment programmes in many countries. See, in particular, Cornia, Jolly and Steward (1987); Taylor (1988, pp.164-165); Laraki (1989, pp.395-408); World Bank (1990); UNDP (1991); Cornia, van der Hoeven and Mkandawire (1992); Duncan and Howell (1992); Tarp (1993, pp.121-126); Grootaert (1994, pp.1521-1534); and Tanski (1994, pp.1627-1642).

3. That has given rise to noticeable changes in the prevailing perceptions concerning the commodity economy. The fierce debate on "inward" and "outward" looking development strategies in the 1950s and 1960s was governed largely by the perceived decline in the long-term trends in the terms of trade between primary and manufactured products. The sharp commodity booms of the 1970s, however, underlined increasing concerns about the approaching depletion of natural resources, and the absolute physical limits to the then prevailing patterns of material-intensive growth. They also served to lull the disquiet and fears of many developing countries about their perennial dependence on primary commodities. The last decade witnessed a widespread application of new technologies and, on the other hand, relatively subdued economic performance of, and the ongoing shift in output structure towards services in, most industrialized market economies. Triggered and/or aggravated by such developments, a persistent "commodity crisis" has emerged - including an excess supply of a structural nature of several "traditional" commodities subject to income-inelastic demand, as well as to substitution and displacement in use; and a prolonged, steep collapse of commodity prices for most of the 1980s. See, for example, Maizels (1992, pp.7-39 and 118-129), World Bank (1994b, pp.32-67), Morgan and Sapsford (1994, pp.1681-1684), and Sapsford and Balasubramanyan (1994, pp.1737-1745) for pertinent analysis; UNCTAD (1994a, b and c) contains extensive data on the patterns of commodity trade and prices, among others.

4. For details, refer to OECD (1984, 1987, and 1994c and d), Bureau of Agricultural Economics (1985), World Bank (1986b), FAO (1987b), Aziz (1990), Krueger, Schiff and Valdés (1991, 3 volumes), and Schiff and Valdés (1992).

5. It should be noted that different categories of farm commodities are subject to differentiated treatment and impact from the policy framework prevailing at any given period. A focus of the illustrative discussion below will be on rice. The overwhelming bulk of this food grain, some 95 per cent in 1993-1994, is produced within the developing world; Asian countries, including many of the newly industrializing economies (NIEs) and their counterparts in East and South-East Asia, feature prominently as principal rice producers and, with one exception relating to the United States, exporters as well. Rice supply and demand conditions and market prospects are examined at length in UNCTAD (1995b).

6. These and other issues associated with the "urban bias" in trade and development policies became a focus of attention in the 1970s, not least through a reflective piece of work by Lipton (1977, especially chapters 3, 6-7 and 11-13). More recent discussion can be found in FAO (1987b, pp.33-127); Aziz (1990, pp.13-43); United Nations (1990, pp.26-46), and World Bank (1994a, pp.17-42). For a succinct analysis in the context of Asian economies, refer to James, Naya and Meier (1989, pp.159-166); and Vyas and James (1988, pp.133-168).

7. Moreover, there is also evidence that the non-farm, rural sector also serves to stimulate crop output and productivity - especially through the supply of trading, storage, transport and even financing services. In addition, the availability of inexpensive partial mechanization inputs and maintenance services makes possible greater cropping intensity as well as helps to overcome periodic labour and other bottlenecks (Liedholm and Kilby, 1989, pp.340-343 and 358-362).

8. In fact, global crop failures and supply shortages during 1973-1974 re-energized the search for greater food self-sufficiency and security, particularly in this most populous region of the world. Net cereal imports in South Asia, for example, rose from 2.7 million tons in 1972 to 11.5 million tons during 1975. Despite an overall surplus position in 1971, the Association of South-East Asian Nations (ASEAN) had registered a relatively substantial deficit of 2.8 million tons of grains by 1973. Indonesia was not able to obtain sufficient quantities of rice from either traditional or non-traditional sources of supply to maintain internal price stability during this critical period, notwithstanding the availability of abundant foreign exchange from oil exports (ESCAP, 1988, pp.110-111; Sicular, 1989, pp.14-15; and Timmer, 1989, pp.24-25).

9. See endnote 3 above for some of the pertinent references.

10. A detailed discussion on the legacy, origins, modalities and impact of agricultural policies among OECD members can be found in the Bureau of Agricultural Economics (1985, pp.25-169), World Bank (1986b), FAO (1987b, pp.129-164), Commission of the European Communities (1988, chapters 3 and 4) and Tracy (1993, pp.148-244).

11. OECD (1994b, pp.107-123, p. 265, and pp. 344-345) and OECD (1994a, p.160; and 1995, pp. 58-59). Producer subsidy equivalent (PSE) indicates the monetary value of policy-induced transfers to farmers from taxpayers and domestic consumers of agricultural products. Its counterpart, the consumer subsidy equivalent (CSE), corresponds to the implicit tax borne by consumers as a result of market price support to producers, net of any consumption subsidies as part and parcel of agricultural policy. The quantification of both concepts is essentially static in nature; in addition, the various components of PSE and CSE (e.g. those associated with price intervention and those with quantitative restrictions) are not separated. The measurements, although lacking in precision, are more satisfactory than the size of budget outlays as an indicator of the level and extent of government support for agriculture (OECD, 1994c, pp.25-28). It should also be noted that the choice of policy instruments (e.g. market price support, direct income payments, subsidies for inputs and other services etc.), as well as the trends in and hence the relative importance of various components in total agricultural assistance vary considerably among OECD member States.

12. Within the European Union, for example, the annual value of PSE averaged some US$ 494 million, or less than 2 per cent and 0.6 per cent of gross PSE for crops and net PSE for all agricultural products during 1992-1993, respectively. The corresponding figures for the United States were US$ 1 billion, and 0.7 and 0.3 per cent, respectively. As regards Australia, the pertinent figures were US$ 9 million, plus 3 and 0.6 per cent (OECD, 1994b, pp.266-348).

13. For example, import levied by the European Union on milled long-grain parboiled rice was US$ 926 per metric ton as of December 1994, while export subsidies on milled medium-grain rice to countries within the specified zones amounted to US$ 427 per metric ton. The corresponding figures were US$ 733 and US$ 325, respectively, a year earlier (United States Department of Agriculture, 1994, p.13).

14. The data and information cited in this section are extracted from Anderson and Hayami (1986), Anderson (1990 and 1994), UNCTAD (1994a and c), and OECD (1994b). Refer also to Patrick and Rosovsky (1976), Li *et al.* (1988) and Amsden (1989).

15. At the beginning of this century, Japan's agriculture is estimated to account for 60 per cent of total employment and almost 30 per cent of GDP. In particular, rice cropping provided one half of farm income, two thirds of the population's daily calorie intake, and one third of urban blue-collar workers' household budget outlays. See Anderson and Hayami (1986, p.162) and Anderson (1990, p. 27).

16. During 1975-1980, for example, Japan's labour productivity in agriculture was only one ninth of that of the United States, and less than one quarter of the levels in France and Germany. It was, however, more than double those in the Republic of Korea and Taiwan Province of China. Over the period of Japan's most rapid economic growth (1955-1970), manufacturing workers' productivity was expanding at twice the rate of farm labour productivity.

17. There are, in fact, several similarities between East Asia and Western Europe in the root causes of agricultural protectionism and its expansion over time. In the context of protection, a sudden and large mining boom may necessitate supportive policies for farming. This is because the exchange rate appreciation, in consequent of the windfall export gains, will combine with other induced relocations of domestic resources to reduce competitiveness in export agriculture, among other non-mineral tradeable sectors. The ratchet effects tend to be more acute in small, open economies.

18. Direct consumption of grains has fallen in Japan, from about 183 kg per capita in the early 1960s to 155 kg in the mid-1980s. However, this decline has been more than offset by the growth in feed grain demand, from 36 to 118 kg in the same period. A similar trend in per capita demand for such foodstuffs, with appropriate lags, has also been observable in the two NIEs under discussion. Japanese consumption of meat also rose very rapidly, from 8 to 36 per capita during the same periods, but per capita consumption of sugar started to plateau out after a sustained expansion until the early 1970s. Generally, the level of per capita consumption of a wide range of food items, among other agricultural products, among most developing economies in East and South-East Asia (with the possible exceptions of Hong Kong and Singapore) are appreciably below those of industrialized and high-income countries (Garnaut, 1989, pp.193-197).

19. Indeed, the net import value of foodstuffs, meat and fishery products in Japan rose to US$ 33.8 billion in 1993, from US$ 19.6 billion in 1987; both were equivalent to around 13 to 15 per cent of total import spending during these years. The Republic of Korea is a net exporter of fishery products. Nevertheless, fish-import expenditure still reached almost US$ 0.5 billion in 1992 (from US$ 0.2 billion in 1987). The country's net outlays on imported foodstuffs and meat, however, expanded very rapidly to almost US$ 2.8 billion (or 3.3 per cent of total import value) in 1993, compared to US$ 0.9 billion (or 2.5 per cent) in 1987 (FAO, 1994b, pp.322-323).

20. For relevant details of the Agreements as well as an initial assessment of the probable outcomes, see UNCTAD (1994d and e), and GATT (1994b).

21. The Agreement on Agriculture distinguishes between domestic support policies which distort trade (amber category) and those that do not (green type). The former embody certain transfers accrued to producers or borne by consumers; they may also be linked to the production of specific commodities. "Green box" measures are basically government programmes that are funded and available publicly, and which do not in effect provide price support to producers. Amber policies include price supports, concessional and other loans, acreage payments, payments based on the number of livestock, input subsidies, etc. Their green counterparts, as specified at considerable length in Annex 2 of the Agreement, cover general government services (such as research, training, extension, marketing and promotion, infrastructure, etc.), public stockholding for food-security purposes, domestic food aid regularly provided at reasonable prices, decoupled income support, disaster-relief payments, payments for structural assistance (via investment aids, or for producer/resource retirement), payments

under regional assistance and environment programmes, and certain payments for the purpose of income and income safety-net insurance.

22. The structural homogeneity of non- or semi-processed primary commodities constitutes another distinctive asymmetry between them and manufactured goods; the latter generally are not governed by the fallacy of composition. For an assessment of the adding-up problem and related policy implications, see Akiyama and Larson (1994), Schiff (1994), World Bank (1994b, pp.36-49), and Maizels (1992, pp.181-199).

23. This stylized concept was first put forward by K. Akamatsu (1962), with several other variants appearing since in the professional literature on the industrial/product life cycle and related postulates.

24. There was a steep appreciation of several East and South-East Asian currency units relative to the United States dollar, after the G-5 Plaza accord in 1985. This subsequently led to a massive outflow of financial resources for restructuring purposes. The major home economies are the NIEs and China. The main host economies of intraregional FDI are China and the newly industrializing economies in South-East Asia - especially Indonesia, Malaysia and Thailand (UNCTAD, 1995a, pp.14-15).

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